The Logic of al-Fanārī

A study and annotated translation of al-Fanārī's commentary on the *Īsāghūjī*

ASIPT Series in Islamic Philosophy and Theology - 3

Translation, commentary and notes by
Aaron Spevack

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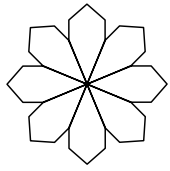

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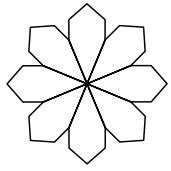

Aaron Spevack

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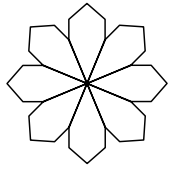

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مَنْ لاَ يَشْكُرُ النَّاسَ لاَ يَشْكُرُ اللهَّ

One who does not thank people does not thank Allah.
—Prophet Muḥammad (*Sunan Abī Dāwūd*)

The book before you is not from the labor of a single hand putting ink to paper, nor, for that matter, from the labor of two hands typing words first developed in the mind and then transmitted to a digital file. It is, rather, the result of a multi-year collective effort to educate and assist one flawed student of logic in his continuing quest to learn, apply, and teach the pre-modern Islamic intellectual tradition. I cannot begin to imagine what this book would have been had it not been for the brilliant teachers, colleagues, students, editors, and friends who patiently taught, discussed, edited, and advised throughout the many years of effort that eventually resulted in the humble text before you.

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annotating, discussing, and summarizing this ostensibly short text on logic at all hours of the day and night. I am grateful for their patience and support.

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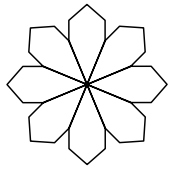
All praise is due to Allah; the mistakes are my own.

Aaron Spevack

Boston, MA

July 25, 2024



بِسْمِ ٱللَّهِ ٱلرَّحْمَٰنِ ٱلرَّحِيمِ

In the name of Allah, the Compassionate, the Merciful

All praise is due to Allah

May peace and blessings be upon the Prophet Muḥammad, his family, companions, and all who follow him.

The Life and Works of Mullā al-Fanārī

Muḥammad b. Ḥamza b. Muḥammad b. Muḥammad Abū al-Faḍā'il wa-l-Kamālāt Shams al-Dīn al-Rūmī al-Ḥanafī al-Fanārī (d. 834/1431), popularly known as Mullā al-Fanārī, was an Ottoman scholar and judge who authored a number of works on a range of topics including law, legal methodology, theology, Sufism, grammar, Quranic exegesis, and logic. A scholar of the Ḥanafī school of law, Māturīdī in theological school, Naqshbandī in Sufi training, and Akbarī in experiential and discursive method, al-Fanārī composed two works on logic in the post-Avicennian method of the later logicians. The latter affiliation, however, did not prevent him from occasionally preferring an opinion of the earlier logicians, or the assessments of verifying scholars (*muḥaqqiqūn*) who sometimes sided with neither the earlier nor later scholars.

His contribution to the study of logic consists primarily of two works. The first is an introductory chapter to his book on legal methodology called *Fuṣūl al-badā'i' fī uṣūl al-sharā'i'*. The second is an advanced commentary on Athīr al-Dīn al-Abharī's (d. 663/1265) popular *Īsāghūjī* (*Isagoge*) or *al-Risāla al-athīrīyya*. Al-Fanārī's commentary on the *Īsāghūjī* is entitled *al-Fawā'id al-fanārīyya,* and it became a popularly studied text in the Ottoman curriculum. To this day, students of the classical Ottoman madrasa curriculum in Türkiye study the *Fawā'id*, some programs assigning it the status of the final book in one's logic studies. Others, such as Shaykh Ṣāliḥ al-Ghursī, replace it with al-Kalanbawī's (Gelenbevī) (d. 1205/1790) commentary on al-Abharī's *Īsāghūjī,* while he and his graduated students still teach the *Fawā'id* as a supplement to the syllabus.

In addition to these two well-known books that have been published numerous times, İbrahim Hakki Aydin—author of one entry on al-Fanārī in the *İslâm Ansiklopedisi*[1]—notes that some sources attribute a gloss to al-Fanārī on Quṭb al-Dīn al-Rāzī's (d. 766/1365) commentary on al-Qazwīnī's (d. 675/1276) *al-Shamsiyya* (*Ḥāshiya ʿalā Sharḥ al-Shamsiyya*). Were this text to come to light, many of the lengthy and complex objections and responses in the *Fawā'id* might be better understood.

1. İbrahim Hakki Aydin, "Molla Fenârî," *TDV İslâm Ansiklopedisi*, https://islamansiklopedisi.org.tr/molla-fenari#1 (14.07.2024).

Ibn Ḥajar al-ʿAsqalānī[2] states that al-Fanārī was a scholar of the sciences of Arabic, rhetorical semantics (*al-maʿānī*) and figurative language (*al-bayān*), and the sciences of variant Quranic recitations; he was actively involved in the various sciences. He wrote works on logic, Quranic exegesis, principles of jurisprudence (*uṣūl al-fiqh*), law, theology, and various topics in Sufism wherein he espoused the views of Ibn ʿArabī (d. 638/1240). Al-ʿAsqalānī highlights al-Fanārī's authorship of works on principles of jurisprudence such as the *Fuṣūl*, mentioning its being derived from a number of sources, including *al-Manār*, *Uṣūl al-Bazdawī*, *al-Maḥṣūl* of al-Rāzī (d. 606/1212), *al-Mukhtaṣar* of Ibn al-Ḥājib (d. 646/1249), among others. It is said that al-Fanārī spent thirty years working on the *Fuṣūl*.[3] Al-ʿAsqalānī concludes his biographical sketch of al-Fanārī, stating "[al-Fanārī] taught al-ʿAḍud (i.e., ʿAḍud al-Dīn al-Ījī's [d. 756/1356] commentary on Ibn al-Ḥājib's work in principles of jurisprudence) approximately twenty times. He wrote, with his own hand, a certificate for me when he visited Cairo."

Listed among al-Fanārī's teachers are:

- Ḥamza b. Muḥammad b. Muḥammad al-Fanārī, the father of Shams al-Dīn al-Fanārī (the author of *al-Fawāʾid al-fanāriyya* and subject of this biography).
- ʿAlāʾ al-Dīn al-Aswad (d. 795/1392), a student of al-Taftāzānī (d. 792/1390),[4] and known in Anatolia as Qarah Khwājah.[5]
- Akmal al-Dīn al-Bābartī (d. 785/1384), the teacher of al-Sayyid al-Sharīf al-Jurjānī (d. 816/1413) and Badr al-Dīn al-Simāwī (d. 823/1420).
- al-Kamāl Muḥammad b. Muḥammad al-Maʿarrī[6]
- Jamāl al-Dīn Muḥammad b. Muḥammad b. Muḥammad al-Aqsarāʾī (d. 779/1378–9).[7]

2. Ibn Ḥajar al-ʿAsqalānī, Aḥmad b. ʿAlī, *Inbāʾ al-ghumr bi-anbāʾ al-ʿumr*, ed. Ḥasan Ḥabashī, vol. 3 (Cairo: al-Majlis al-Aʿlā li-l-Shuʾūn al- Islāmiyya, Lajnat Iḥyāʾ al-Turāth al-Islāmī, 1969), 464–5.
3. Aḥmad b. Muṣṭafā Ṭāshkubrīzādah, *al-Shaqāʾiq al-nuʿmāniyya fī ʿulāmāʾ al-dawla al-ʿuthmāniyya wa-yalīhi al-ʿIqd al-manẓūm fī dhikr afāḍil al-Rūm* (Beirut: Dār al-Kitāb al-ʿArabī, 1975), 9.
4. Sebastian Günther, *Knowledge and Education in Classical Islam: Religious Learning Between Continuity and Change* (Leiden: Brill, 2020), 986.
5. Ṭāshkubrīzādah, *al-Shaqāʾiq*, 9.
6. İbrahim Hakki Aydin, "Molla Fenârî."
7. Ṭāshkubrīzādah, *al-Shaqāʾiq*, 14.

- Shaykh Ḥamīd, the shaykh of Shaykh al-Ḥājj Bayrām (i.e., Haji Bayram Veli, founder of the Bayrami Sufi order).[8]
- Somuncu Baba, baker and pre-eminent Sufi shaykh.[9]
- Mubārakshāh al-Manṭiqī (d. 806/1403)[10]

A number of luminaries are listed among his students, including:

- al-Kāfiyajī (d. 879/1474), the main teacher of Jalāl al-Dīn al-Suyūṭī (d. 911/1505).[11]
- Ibn Ḥajar al-ʿAsqalānī (d. 852/1449): "He personally wrote a letter of permission for me when I visited Cairo."[12]
- Muḥammad Shāh al-Fanārī (his son) (d. 839/1435–6)[13]
- Shihāb al-Dīn b. ʿArabshāh (d. 854/1450)
- Qāḍīzādah al-Rūmī (d. after 844/1440)
- Quṭb al-Dīn Zādah al-Iznikī (d. 855/1451)
- Amīr Sulṭān
- Mullā Yaghān

A number of details of al-Fanārī's life are laid out chronologically in several biographies. They give a fascinating glimpse into the interconnections between scholarly traditions of Anatolia, Egypt, the Hijaz, and the Levant. While politics and other exigencies of the time influenced the movement of students and scholars, so too did the primary aim of study and scholarship, along with the obligatory Hajj pilgrimage. These factors also carried al-Fanārī to important learning centers in his time. Bursa, Cairo, Jerusalem, Konya, and Mecca all hosted al-Fanārī, where he learned and taught logic, legal methodology, and other disciplines among the luminaries of his time.

8. Ṭāshkubrīzādah, *al-Shaqāʾiq*, 19.
9. Alan Godlas, "Molla Fanārī and the *Miṣbāḥ al-Uns*: The Commentator and The Perfect Man," in *International Symposium on Molla Fanārī, 4–6 December 2009, Bursa Proceedings*, 33. https://ibnarabisociety.org/wp-content/uploads/PDFs/Godlas_Molla-Fanārī.pdf
10. Sebastian Günther, *Knowledge and Education in Classical Islam: Religious Learning Between Continuity and Change* (Leiden: Brill, 2020), 986.
11. Ibn Ḥajar al-ʿAsqalānī, *Inbāʾ al-ghumr*, 464–5.
12. Ibn Ḥajar al-ʿAsqalānī, *Inbāʾ al-ghumr*, 464–5.
13. The remaining names are drawn from Aydin's entry. For consistency, the names are transliterated as Arabic names, rather than Turkish. For Turkish transliterations, see: İbrahim Hakki Aydin, "Molla Fenârî."

Biographical Sketch of al-Fanārī's Life and Career

Al-Fanārī was born in the Islamic lunar month of Ṣafar in 751 AH, corresponding to April 1350 CE, in Western Anatolia. His student Muḥy al-Dīn al-Kāfiyajī considered the ascription to Fanār to denote the profession of "lamp-maker," while others say Fanār is the name of a village, in either case making al-Fanārī a relational noun (*ism mansūb*). Some biographers consider Fanār to be a village near the villages of Yenişehir and İnegöl in the modern-day Bursa province of Türkiye, and these same biographers also considered his father to have been a lamp-maker. Ibn Ḥajar al-ʿAsqalānī in his *Inbāʾ* mentions that al-Fanārī was popularly known as Ibn al-Fanārī, indicating that al-Fanārī's father, too, was ascribed with the term Fanār.[14] Perhaps there existed an Anatolian village called Fanār where at least one lamp-maker—Ibn al-Fanārī's father—lived and worked? Other biographers, however, said that the village of Fanār was in Transoxiana, though the biographies consulted do not mention al-Fanārī or his father having moved from there.[15]

Early Education: Home and Amasya

Al-Fanārī's studies began under his father's tutelage in western Anatolia, though the exact whereabouts are disputed, as mentioned above. Ṭāshkubrīzādah says about al-Fanārī's father:

> I heard from some reliable sources that Mūllā Ḥamza, the father of Mullā al-Fanārī, was one of the students of Shaykh Ṣadr al-Dīn al-Qūnawī [d. 673/1274] and studied the latter's *Miftāḥ al-ghayb* directly with him and then taught it to his son, Mullā al-Fanārī. Mullā al-Fanārī then produced a comprehensive commentary, incorporating Sufi knowledge the likes of which no ears had heard before and of which ordinary minds fell short in their comprehension.[16]

After having completed his early studies with his father, al-Fanārī then studied under the renowned scholar ʿAlāʾ al-Dīn al-Aswad in the city of Iznik, formerly Nicea. Al-Aswad was known for his commentaries on *al-Mughnī*

14. Ibn Ḥajar al-ʿAsqalānī, *Inbāʾ al-ghumr*, 464–5.
15. İbrahim Hakki Aydin, "Molla Fenârî."
16. Ṭāshkubrīzādah, *al-Shaqāʾiq*, 18.

and *al-Wiqāya* in legal methodology.[17] The Ottoman Sultan Orhan[18] appointed al-Aswad to run the madrasa of Iznik, during which time he composed his *al-Wiqāya*.[19]

In 778/1376, al-Fanārī moved to the Anatolian city of Amasya[20] where he became a student of Jamāl al-Dīn Muḥammad b. Muḥammad b. Muḥammad al-Aqsarā'ī from whom he eventually received an authorization (*ijāza*). Ṭāshkubrīzādah (d. 968/1561) narrated "from some reliable individuals" the circumstances that led to al-Fanārī's leaving al-Aswad's instruction for al-Aqsarā'ī's. After having studied al-Aswad's commentary on *al-Wiqāya* for a time in Iznik, there occurred between them a dispute whereupon al-Fanārī departed in order to study under al-Aqsarā'ī.[21] Al-Aswad's son, Mawlā Ḥasan Pāshā (d. 827/1424), too studied under al-Aswad and then moved on to study with al-Aqsarā'ī. No dispute between father and son is mentioned, so perhaps this was a common trajectory for students in al-Fanārī's time.

Al-Fanārī and Mawlā Ḥasan Pāshā al-Aswad studied together under al-Aqsarā'ī, who taught at a madrasa called Madrasat al-Silsila. One day, al-Aqsarā'ī is reported to have secretly observed the students' rooms and saw Mawlā Ḥasan Pasha reclining while looking at a book. He also saw al-Fanārī kneeling and closely reading books, writing comments in the margins. Al-Aqsarā'ī said of the first (i.e., Mawlā Ḥasan Pāshā al-Aswad), "He will not reach the rank of excellence," and then said of the second (al-Fanārī), "He will attain excellence and have a distinguished rank in knowledge." According to Ṭāshkubrīzādah, what al-Aqsarā'ī said came to pass. Despite that prediction, Mawlā Ḥasan Pāshā wrote a commentary on *al-Marāḥ* in morphology and a commentary on *al-Miṣbāḥ* in grammar called *al-Iftitāḥ*.[22]

The students of Madrasat al-Silsila were divided into three levels: the primary level students were those who accompanied al-Aqsarā'ī as he rode to the lesson. He called them the "Peripatetics" (literally, 'the walkers'). The mid-level students were called the "Stoics" (literally, 'the residents of the porticos'), because they lived under the porticos (*al-riwāq*) outside the madrasa. The highest-ranking students lived inside the madrasa. Al-Aqsarā'ī would first

17. Ṭāshkubrīzādah, *al-Shaqā'iq*, 9.
18. Death dates for Sultan Orhan (or Orkhān Ghāzī) differ. Some say 761/1360, while others say 763/1362.
19. Ṭāshkubrīzādah, *al-Shaqā'iq*, 9.
20. İbrahim Hakki Aydin, "Molla Fenârî."
21. Ṭāshkubrīzādah, *al-Shaqā'iq*, 9.
22. Ṭāshkubrīzādah, *al-Shaqā'iq*, 23.

teach the primary students while he rode. Then, he would descend from his horse and teach the mid-level students who lived in the porticos. Thereafter he would enter the madrasa and teach the advanced students. Al-Fanārī lived in the porticos amongst "the Stoics," due to his youthful age at that time.[23]

When al-Sayyid al-Sharīf al-Jurjānī traveled to Madrasat al-Silsila to study with al-Aqsarā'ī, the latter had just passed away. However, at the madrasa, he met al-Fanārī and the two of them departed for Cairo to complete their studies under the Ḥanafī scholar Akmal al-Dīn al-Bābartī.

The Move to Cairo

Cairo was under the rule of the Mamluk Sultanate when al-Fanārī and al-Jurjānī arrived. It was common for Anatolian scholars of their day to travel to Cairo prior to Istanbul's absorption into the Ottoman Empire whereupon it too became a major center of learning.[24] Al-Fanārī was in his twenties at the time and in Cairo he studied with several scholars, foremost among them was the al-Bābartī. He eventually received an authorization (*ijāza*) from him before returning to Anatolia. The timeline provided by historians indicates that al-Fanārī may have spent close to seventeen years between Amasya and Cairo, though not a lot of detail is narrated about his time spent studying in Cairo.

Akmal al-Dīn al-Bābartī is ascribed to either the Anatolian town of Bayburt (Baybert, Türkiye), about 80 miles southeast of Trabzon in modern day Türkiye, or the village of Bābirtā (or Bābirtī) near Baghdad. Those who attribute him to Anatolia place his early studies in Anatolia, then Aleppo, and finally Cairo where he is buried.[25] If correct, then he is yet another example of an Anatolian scholar who made his way to study with the diverse group of scholars in Cairo who lived and taught during his time. A scholar of Ḥanafī law, Māturīdī theology, hadith, and the sciences of the Arabic language, he wrote several books on various topics and served as the head of the Shaykhūniyya Sufi lodge. Al-Fanārī took authorization (*ijāza*) from al-Bābartī, who died in 1384, some nine years before al-Fanārī returned to Bursa in 795/1393.

23. Ṭāshkubrīzādah, *al-Shaqā'iq*, 15.
24. Khaled El-Rouayheb, *The Development of Arabic Logic* (Cambridge: Cambridge University Press, 2019), 90.
25. Arif Aytekin, "Bâbertî," *TDV İslâm Ansiklopedisi*, https://islamansiklopedisi.org.tr/baberti (14.07.2024).

Back to Bursa, Then to Konya and Karaman

After almost two decades away, first in Amasya and then in Cairo, al-Fanārī returned to Bursa, the intellectual center of the Ottoman Empire prior to Istanbul's ascent to that rank. In Bursa, the Ottoman Sultan Bayezid I (d. 805/1403) appointed al-Fanārī as a professor in the Manāstir Madrasa, which had been founded by Sultan Orhan along with the madrasa in Iznik in which al-Fanārī studied decades earlier. For nearly one hundred years afterwards, the head of the Manāstir Madrasa was a descendent of al-Fanārī.[26] Bayezid I also appointed al-Fanārī as judge in 795 AH / 1393 CE. He gained great esteem with the ruling class and was well-known for his virtuous character.[27] He occupied these academic and governmental positions for close to a decade until 1402 when Tamerlane's (d. 807/1405) forces captured Bursa and imprisoned Bayezid I.

Some sources imply that al-Fanārī left after the defeat of Bayezid I; however, Ṭāshkubrīzādah attributes his departure to a disagreement between al-Fanārī and the Sultan. The anecdote begins with al-Fanārī rejecting the testimony of Sultan Bayezid I in a legal matter due to the latter's neglect of the communal prayers, implying that he only prayed alone or away from the public. In response to this judgment, the Sultan built a mosque in front of his palace and designated therein a specific place for himself. Thereafter, he never neglected prayer in congregation. Later, however, a disagreement between al-Fanārī and the Sultan occurred, leading to al-Fanārī's resignation from his positions and departure from Bursa. The next stop in his journey appears to be Konya and then Karaman, where the ruler of the Karamanid Beylik provided al-Fanārī a daily stipend of one thousand dirhams, and his students were provided daily stipends of five hundred dirhams. Among his students were two notable individuals Mullā Yaʿqūb al-Aṣfar and Mullā Yaʿqūb al-Aswad, a fact of which al-Fanārī was proud, saying, "The two Yaʿqūbs studied under me."

Back to Bursa, Again

Al-Fanārī returned to Bursa in 817/1414, apparently at the request of then Sultan Mehmed I (d. 824/1421), [28] where he resumed his role as professor and judge

26. Ahmed Zildzic, "Friend and Foe: The Early Ottoman Reception of Ibn `Arabī" (PhD thesis, University of California, Berkley, 2012), 9.
27. Ṭāshkubrīzādah's account implies Beyazid I asked him to return after feeling remorse for their falling out; however, this would be anachronistic since it occurred in 817/414. Ṭāshkubrīzādah, *al-Shaqā'iq*, 18.
28. Ṭāshkubrīzādah, *al-Shaqā'iq*, 19.

of Bursa in 818/1415. Ibn Ḥajar al-ʿAsqalānī attributes al-Fanārī's return not to any regrets over the disagreement between him and the previous Sultan, but rather due to fighting that broke out between the Karamanids and the Ottomans. Upon the Ottoman's defeat of the Karamanids in this battle, the Sultan brought al-Fanārī back to Bursa. After being entrusted again with the judiciary, al-Fanārī's status continued to be elevated and his reputation for piety and virtue continued to grow.[29]

The Pilgrimage to Mecca, a Visit to Cairo, and a Stop in Jerusalem

In 822/1419, al-Fanārī undertook his first pilgrimage to Mecca. On the return journey, he stayed in Cairo at the invitation of al-Malik al-Muʾayyad Shaykh al-Maḥmūdī (d. 824/1421). While in Cairo, al-Fanārī engaged in rigorous scholarly exchange with prominent scholars who then affirmed and testified to his scholarly excellence. In Bursa, where he had taught throughout the previous decade, he was recognized for his excellent demeanor, virtue, and benevolence, though he had faced criticism for his ascription to Ibn ʿArabī's thought, teaching Ibn ʿArabī's *Fuṣūṣ al-ḥikam*, and for endorsing it rather than criticizing it. However, upon arriving in Cairo, he did not publicly state or discuss any of these controversial issues, following the advice of those who cared for him that he should not speak on such matters.

After spending some time in Cairo, al-Fanārī was then recalled to Bursa. As he made his way back, he visited Jerusalem around 823/1420 in which he built a madrasa before returning to Bursa, where he is reported to have opened three mosques and a madrasa as well.[30] Regarding the latter details of his philanthropy, al-Fanārī had become extremely wealthy; it is said that he amassed 150,000 dinars in cash alone.[31] He is remembered as a scholar who succeeded in both religion, wealth, and philanthropy. It is said that he had many servants whom he dressed in fine clothes while he himself wore only simple clothing and on his head only a small turban in the manner of the Sufi shaykhs. He would say that his modest lifestyle were all his earnings allowed.[32]

29. Ibn Ḥajar al-ʿAsqalānī and Ṭāshkubrīzādah's narratives may mix certain details, attributing some events to al-Fanārī's first foray as chief justice, which may have been during the time of his return, or vice versa. They are minor details about fame and fortune and have been incorporated for narrative flow and faithfulness to the sources, despite the possibility of conflicting dates in each of the sources.
30. İbrahim Hakki Aydin, "Molla Fenârî."
31. Ṭāshkubrīzādah, *al-Shaqāʾiq*, 18.
32. Ṭāshkubrīzādah, *al-Shaqāʾiq,* 18.

Appointment to Chief of the Judiciary

In 828/1425 Sultan Murad II (d. 855/1451) appointed al-Fanārī to the position of judge and mufti of the lands under his rule. This position effectively evolved into the Ottoman chief justice position (Shaykh al-Islam), and as such, al-Fanārī is often considered to be the first to hold the position, at least in its prototypical form before it evolved into the official role of chief justice and leader of the scholarly class by the mid-16th century.[33]

The sources consulted present al-Fanārī as holding some combination of the titles professor, judge, and mufti whenever he lived in Bursa, from the beginning of his professional career in 795/1393 when he returned from his studies in Egypt to Sultan Murad II's appointing him as chief justice in 828/1425. It is clear that he held this latter position until his death, but the exact nature of his judicial roles throughout his career prior to 828/1425 may require more nuanced parsing of the available sources.

In his role as teacher, Ṭāshkubrīzādah records that the standard class schedule for students in his time included days off on Friday and Tuesday. However, al-Fanārī also gave them Mondays off, not to rest, but rather to copy the works of al-Taftāzānī which, though popular, were not widely available. So, Mondays were added to their days off to give them time to copy al-Taftāzānī's works, which the students desired to read.[34]

A Pilgrimage of Gratitude and the Final Return

For part of his adult life, al-Fanārī suffered from some malady of the eyes which rendered him nearly blind. It is said that the reason for this blindness was that he had heard that the earth does not consume the flesh of the scholars who act according to their knowledge. To verify this claim, he exhumed the body of his teacher 'Alā' al-Dīn al-Aswad and found him just as he had been buried despite a long period of time having elapsed. Upon this discovery, he heard a disembodied voice saying, "Do you now believe?! May God blind you!" Thereafter he went blind.[35]

However, he eventually regained his sight, and out of gratitude, he performed a second Hajj pilgrimage in 833/1430 via a route that passed through

33. İbrahim Hakki Aydin, "Molla Fenârî."
34. Ṭāshkubrīzādah, *al-Shaqā'iq*, 20.
35. Ṭāshkubrīzādah, *al-Shaqā'iq*, 20–1.

Antioch.[36] He apparently returned via Egypt and, again, enjoyed scholarly discussions with the resident scholars before returning to Bursa. Not long after his return, he passed away in Bursa on the first of Rajab, 834/1431, at the age of 80. Others have said that he died in 838/1434–5.[37] He is buried alongside some of his children next to one of the mosques he built in Bursa,[38] which still stands today, albeit largely reconstructed after being damaged in an earthquake in 1855.[39] In addition to his immense scholarly legacy in logic, Sufism, and other sciences, his inherited estate included a library of ten-thousand books.[40]

Al-Fanārī's Writings

While biographers tend to emphasize al-Fanārī's *Fuṣūl al-badā'iʿ* in legal methodology and his *al-Fawā'id al-fanārīyya* in logic, his works amount to at least thirty-one, though not all have been published.[41]

- *ʿAyn al-aʿyān* (*Tafsīr Sūrat al-Fātiḥa*) (Quranic exegesis)
- *Taʿlīqāt ʿalā awā'il al-Kashshāf* (Quranic exegesis)
- *Fuṣūl al-badā'iʿ* (Legal methodology, with a substantial section on logic)
- *Sharḥ al-Farā'iḍ al-sirājīyya* (Laws of inheritance)
- *Sharḥ Talkhīṣ al-Jāmiʿ al-kabīr fī al-furūʿ* (Law)
- *Sharḥ Fiqh al-Kaydānī* (Law)
- *Miṣbāḥ al-uns bayna al-maʿqūl wa-l-mashhūd fī sharḥ Miftāḥ al-ghayb* (Sufism)
- *Sharḥ Dībājat* (*Muqaddimat*) *al-Mathnawī* (Sufism)
- *Sûfiyyenin Libâs ve Etvâr ve Meslekine Dair İtirâzâta Reddiye* (Sufism)[42]
- *Taḥqīq ḥaqā'iq al-ashyā' wa daqā'iq al-ʿulūm wa-l-ārā'* (*Risāla fī al-taṣawwuf, al-Muqaddimāt al-ʿashara*) (Sufism)
- *Taʿlīqa ʿalā Iṣṭilāḥāt al-ṣūfiyya* (Sufism)

36. Ibn Ḥajar al-ʿAsqalānī, *Inbā' al-ghumr*, 464–5.
37. İbrahim Hakki Aydin, "Molla Fenârî."
38. İbrahim Hakki Aydin, "Molla Fenârî."
39. https://www.gotobursa.com.tr/en/mekan/molla-fenari-mosque-265/
40. Ṭāshkubrīzādah, *al-Shaqā'iq*, 19.
41. The majority of books on this list comes from Aydin's entry in TDV İslâm Ansiklopedisi, except where otherwise noted. İbrahim Hakki Aydin, "Molla Fenârî."
42. The title of this text is listed in Turkish in Aydin's list; however, the rest of the titles are presented as Arabic titles transliterated according to Turkish conventions. İbrahim Hakki Aydin, "Molla Fenârî."

- *al-Fawā'id al-fanāriyya* (Logic)
- *ʿAwīṣāt al-afkār fī ikhtibār ulī al-abṣār* (Theology, inheritance, legal methodology, and etiquette)
- *Ḥāshiya ʿala al-Ḍaw'* (Grammar)
- *al-ʿIshrūn qiṭʿa fī al-ʿishrīn ʿilman* (Multiple sciences, riddles for scholars in poetic meter)
- *Asās al-ṣarf fī ʿilm al-taṣrīf* (Morphology)
- *Sharḥ Mukhtaṣar al-Mawāqif* (Theology)
- *Taʿlīqāt ʿalā Sharḥ al-Mawāqif* (Theology)
- *Baḥth fī al-nāsikh wa-l-mansūkh min tafsīr al-Fātiḥa* (Quranic exegesis)
- *Ḥāshiya ʿalā Ḥirz al-amānī* (Quran recitations)
- *Ḥāshiya ʿalā Sharḥ al-Shamsiyya* (Logic)
- *Risāla fī ādāb al-baḥth* (Dialectics)
- *Risāla fī māhiyyat al-shayāṭīn wa-l-jinn* (Theology)
- *Risāla fī manāqib al-Shaykh ʿAlā' al-Dīn al-Naqshbandī* (Sufism)
- *Sharḥ al-Fawā'id al-Ghiyāthiyya* (Sufism)
- *Risāla fī rijāl al-ghayb* (Theology/Sufism)
- *Risāla fī bayān waḥdat al-wujūd* (Sufism)
- *Murshid al-muṣallī* (Laws of prayer)
- *Sharḥ Talkhīṣ al-Miftāḥ* (Rhetoric)[43]
- *Sharḥ al-Miṣbāḥ li-l-Maṭrazī fī al-naḥw* (Grammar)
- *Sharḥ Uṣūl al-Bazdawī* (Legal methodology)
- al-Fanārī's *al-Fawā'id al-fanāriyya* in Logic

The present volume consists of an annotated translation of *al-Fawā'id al-fanāriyya*, al-Fanārī's famous commentary on Athīr al-Dīn al-Abharī's *Īsāghūjī* (*Isagoge*). It also includes a full "plain-English" re-presentation of al-Fanārī's commentary enhanced by the inclusion of helpful explanations drawn from various glosses on the *Fawā'id*. One justification for translating, annotating, and interpretively presenting a text such as this is that it gives the Anglophone student and scholar of Arabic Islamicate logic access to a terse and dense commentary that played a central role in the Ottoman curriculum

43. This and the remaining two books are listed in the editor's introduction to *al-Fawā'id al-fanāriyya* but not found in Aydin's list. See Muḥammad al-Fanārī and Qūl Aḥmad al-Dimashqī, *al-Fawā'id al-fanāriyya*, 1st ed. (Istanbul: al-Maktaba al-Hāshimiyya), 2012.

in the past and continues to be used in those institutions and circles where the Ottoman curriculum is still studied. For the reader whose Arabic language skills are strong enough to comprehend the general meaning of the Arabic, but whose knowledge of the subject matter and particular method of commentarial writing is not strong enough to rely solely on Arabic-language glosses, the translation, annotation, and explanatory re-presentation will provide deeper immersion in the commentary tradition's unique style and method.

The *Īsāghūjī* is an introductory primer in logic which has received numerous commentaries, each geared towards students of various levels of familiarity with this instrumental science.[44] Al-Fanārī's advanced commentary on the Isagoge, called *al-Fawā'id al-fanāriyya* (The Fanāriyan Beneficial Insights), has confounded students of logic for centuries due to its terse and dense style as well as the presumption that the reader knows well the science of dialectics along with the subtle interpretive disagreements discussed in other texts and commentaries.

In his *Tartīb al-ʿulūm*,[45] Sājaqlīzādah (d. 1145/1732) writes that among the common errors of students of logic is busying themselves with the study of al-Fanārī's commentary along with its popular gloss *Ḥāshiyat Qūl Aḥmad* before having studied other texts more appropriate to their level.

Sājaqlīzādah comments:

> From the poor pedagogical planning of students of logic is their busying themselves with the study of al-Fanārī's commentary along with the gloss of Qūl Aḥmad [d. 785/1383]. After completing the commentary of al-Ḥusām al-Kātī [d. 760/1359], the novice does not understand these two [al-Fanārī and Qūl Aḥmad] before completing the commentary [of Quṭb al-Dīn al-Rāzī] on the *Shamsiyya*. Also, from their poor pedagogical planning is to begin [their readings of] the commentary on the *Shamsiyya* with the gloss of al-Jurjānī and moreover its gloss by Qarah Dāwūd [d. 948/1541]. Indeed, busying oneself with the peculiarities of a science before understanding its clear inquires prevents understanding of that science. More preferable is that one begins the study of logic with the commentary of al-Ḥusām al-Kātī, then the commentary on the *Shamsiyya* until completing [its chapters on] assents [and syllogisms]

44. The following paragraphs, unless otherwise noted, are slightly edited excerpts from my article "Defending Definitions: The Tools of Disputation in Logic of al-Fanārī." Aaron Spevack, "Defending Definitions: The Tools of Disputation in Logic of al-Fanārī," *Methodos*, no. 22 (2022), https://doi.org/10.4000/methodos.9045.

45. Muḥammad Sājaqlīzādah, *Tartīb al-ʿulūm* (Beirut: Dār al-Bashā'ir al-Islāmiyya, 1988), 140–1.

> without the gloss. After that, the student may choose, if he so wishes, to suffice himself of that science with this amount, or, if he so wishes, to busy himself with some of the glosses such as *Ḥāshiyt Qūl Aḥmad* in the manner of research and perceiving the subtleties [of the science]. That is, however, after having knowledge of the ways of dialectics.

While some reference to al-Fanārī's text is found in orientalist works,[46] its reputation for being difficult to penetrate and comprehend likely proved all too true for early European scholars who may have preferred the simplicity of earlier works to the complex, abridged, and highly technical texts of the Ottoman tradition.

In addition to the preliminary texts that Sājaqlīzādah considers prerequisites to the study of al-Fanārī's commentary, properly understanding said commentary also requires knowledge of the technical terminology and methods of its fellow instrumental science, namely the science called dialectics (*ādāb al-baḥth wa-l-munāẓara*). While the stated aim of al-Fanārī's commentary is to provide "beneficial insights (*fawā'id*) appropriate for the brothers' perusal of the gems of al-Abharī's epistle in logic," al-Fanārī's commentary is also a useful study of how the nomenclature and methods of disputation permeated the genre of the commentary in the early Ottoman era.[47]

The continued popularity of the *Fawā'id* can be deduced by the plethora of commentaries that it received and the volume of lithographs and printings from the nineteenth century until the present day. Likewise, a number widely used glosses by various Ottoman, Tatar, and Azeri scholars[48] on a portion or the entirety of the text are found in lithograph and contemporary print. Azeri scholar Qūl Aḥmad's (d. 785/1383) gloss is likely the most popular, as evidenced by Sājaqlīzādah's previously mentioned statement along with the numerous different printings available today. It is also referenced or critiqued in later commentaries, such as Muḥammad b. Aḥmad al-Fawzī's (d. 1900)[49] *Khulāṣat*

46. C.F. Seybold, "Al-Abharī's (gest. 663 = 1265) Isagugi und al-Fanārī's (gest. 834 = 1431) Kommentar dazu: Bemerkungen zu Gothanus 1178 und Enzyklopadie des Islam I, 74a," *Der Islam* 9 (1919): 112.
47. Here ends the edited excerpt from "Defending Definitions."
48. Khaled El-Rouayheb, *The Development of Arabic Logic* (Cambridge: Cambridge University Press, 2019), 91.
49. Known in Turkish as Fevzi Efendi. He was originally from Yarānkamah (Yarangüme in modern-day Tavas, Turkey), then a judge in Edirne, and ended up in Istanbul, according to his own account in his *Tafrīj al-qalaq fī tafsīr Sūrat al-Falaq*. Muḥammad b. Aḥmad al-Fawzī, *Tafrīj al-qalaq fī tafsīr Sūrat al-Falaq* (Istanbul: Maṭba'at al-Ḥājj Muḥarram Afandī, 1284 [1868]). https://nrs.lib.harvard.edu/urn-3:fhcl:2380020. Also see Mustafa İsmet Uzun,

al-mīzān, while it received super-glosses from Qarah Khalīl (d. 1123/1711), Ḥāfiẓ b. ʿAlī al-ʿImādī (d. date unknown), ʿAbdallāh al-Kānqirī (1239/1823), among others. Qūl Aḥmad's gloss likely became the most common pairing of glosses to the *Fawā'id*; however, al-Fawzi's gloss is arguably the most useful to the reader with limited experience with the text, topic, and commentary tradition.

ʿAbdallāh al-Kānqirī's commentary is notable as it also collates issues from the *Fawā'id* with their treatment in al-Fanārī's *Fuṣūl al-badā'iʿ*, something that other commentators did not always attempt.[50] Other useful commentaries exist, such as al-Shawqī's (d. 1224/1809) and al-Chūrī's (d. 1322/1904–5), both published on multiple occasions.

The glosses and super-glosses, along with the works of al-Kātī and Quṭb al-Dīn al-Rāzī, among others, have been referenced throughout the process of translating, annotating, and summarizing the *Fawā'id*. Through contextualizing al-Fanārī within his historical, intellectual, political, and commentarial environment, it becomes clear that al-Fanārī was part of a vibrant conversation in his time with the scholars that came before him, especially those who investigated al-Taftāzānī's recent contributions as well as those of Avicenna and those who followed him. The study of logic was a living tradition in the madrasas of al-Fanārī's time and was tied to a purpose, namely obtaining true creed and discarding false creed, which, al-Fanārī explains, is not obtained except by the syllogistic proof composed of certain premises (*al-burhān*). When viewed in tandem with the worshipful scholarly life of the student living and studying in the madrasa, the imparting of the Sufi path therein and after graduation, and the discursive scholastic tradition that incorporated and combined the study of the rational and religious sciences, the work translated and presented here offers a glimpse into al-Fanārī's world. It was a deeply rational and analytic scholarly milieu that was also imbued with spiritual, political, economic, and other social variables whose impact is apparent throughout the side discussions in the commentaries and contextual variables "above the text" (frequency of commentary, glossing, printing, teaching appointments, scholarly disputes with rulers, etc.).

"Fevzi Efendi, Edirne Müftüsü," *TDV İslâm Ansiklopedisi*, https://islamansiklopedisi.org.tr/fevzi-efendi-edirne-muftusu (20.07.2024).

50. For a discussion of the various printings of the text, its focus, and connection to Qarah Khalīl's super gloss, see Khaled El-Rouayheb, *The Development of Arabic Logic* (Cambridge: Cambridge University Press, 2019), 234.

How to Use This Book

This is not a book of intellectual history in its primary intention, though it is informed by the discipline as is readily apparent. It is also not a mere translation with the aim of delivering the meanings from one language to another, though if we have succeeded in doing so, then this would hopefully be counted in our favor. It certainly is not an effort to insert ourselves into intergenerational commentary tradition, though if we have occasionally overstepped our bounds and offered useful analysis or comparison, then, if true, we praise God, and if we missed the mark, it is only of our own shortcomings. Rather than history, translation, and commentary, it instead grows from a simple desire to deeply understand al-Fanārī's text and to share that understanding with other students and scholars who have not had the luxury of studying directly with scholars who are the inheritors of al-Fanārī's Ottoman syllabus. It is also hoped that it will serve students in seminaries and universities who are studying the Arabic text and receiving instruction in Arabic, Turkish, Kurdish, Urdu, or otherwise, but whose mother tongue is English. For the student or scholar of Arabic Islamicate logic or comparative logic traditions more broadly, it is also hoped that such readers will taste the unique, if at times challenging (even frustrating), experience of the classical Islamic commentary tradition.

How one uses the three main components of this text may vary according to reader, but one useful approach that may benefit all is to read the explanatory summary first, before venturing to read the translation along with its ample annotations. Another approach for readers with some background in the material already may be to alternate between the Arabic original, English translation, annotations, and relevant sections of the explanatory summary, moving section by section through the original text, and circling back and reviewing as one goes. A read through the translation alone is likely to leave the reader adrift in confusion, at least in some discussions, but for one who merely wants access to the base-text itself, great effort has been expended to ensure accuracy and clarity while staying as true as possible to the flow of the original presentation.

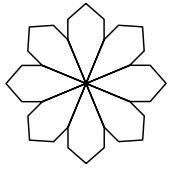
Commentary on the *Īsāghūjī*

by

al-ʿAllāma Shams al-Dīn

Muḥammad b. Ḥamza al-Fanārī

(May Allah have mercy on him)



In the name of Allah, the Compassionate, the Merciful

Author's Introduction

In the name of Allah, the Compassionate, the Merciful

Praise is to You, O Allah, for those bestowals of the learned's goodly benefits which you gathered for me,[1] and for the tribulations of the tempestuous gales of virtues from which you freed me.[2] Blessings upon the generality of those reached by the best of blessings,[3] especially upon our master Muhammad, characterized by the loftiest of praiseworthy traits and sent to the noblest of tribes, and upon his family and his companions who were guided by the clearest of proofs.[4]

(As for what follows):

When I did not find benefit in offering excuses with "perhaps" and "maybe"[5] [as responses to] the suggestion of [one who is like] a brother to me every morning and night[6] that I write benefits appropriate for the brothers' perusal

1. The goodly benefits of the learned scholars are the inquiries (*masā'il*) mentioned in their books or taken from their sayings. The learned scholars are the *'ulamā' al-'āmilūn*—those scholars who put their knowledge into action—and the *ḥukamā' al-kāmilūn*—the wise philosophers who are complete in their knowledge. Muḥammad al-Fawzī, *Khulāṣat al-mīzān* (Istanbul: Maṭba'at al-Ḥājj Muḥarram Afandī, 1284H), 3–4. Qūl Aḥmad al-Dimashqī, *al-Fawā'id al-fanāriyya*, 2nd ed. (Istanbul: al-Maktaba al-Hāshimiyya, 2015), 14.
2. "The intended meaning here [of virtues] is knowledge, that is, 'you have freed me from the hardships of that which ruins praiseworthy virtues [such as knowledge], [hardships such as] poverty, sickness, and others.'" Al-Fawzī, *Khulāṣa*, 4.
3. The best of blessings that reached them was faith (*īmān*) and practice (*islām*), and the noble attributes of prophecy and messengerhood. This is if "best" (*al-awlā*) is read with a *hamza* on the *alif*. If it is read with a *ḍamma* (*al-ūlā*), then it would be rendered "reached by the first blessing." Al-Fawzī, *Khulāṣa*, 5.
4. The clearest of proofs refers to the Quran, or it has also been said that they are the Prophet's miracles (*mu'jizātihi*). Al-Fawzī, *Khulāṣa*, 5.
5. Al-Fanārī thought to tell his student why he was too busy with things that would prevent him from answering this request to write a commentary on the *Īsāghūjī*, and that perhaps (*la'alla*) and maybe (*'asā*) Allah would repel these things preventing him from doing so, but he (al-Fanārī) found no benefit in making these excuses and instead answered the request. Al-Fawzī, *Khulāṣa*, 6.
6. "Brother" can mean brothers in religion and humanity (*akh fī dīn wa-ṭīn*), but more likely here refers to his being a student evidenced in part by the fact that they are brothers "every morning and night," indicating that students in a traditional madrasa setting would likely

of the gems[7] of al-Abharī's epistle in logic, I began to write at the dawn of a day from the shortest of days, and completed it with the call to that evening's prayer, with the aid of Allah the Most Knowledgeable King who is, indeed, the master of every bestowal of success and granting of blessings.

The Unifying Principle

Know that it is rightfully befitting of all who seek a multitude[8] [of things] joined together by a unifying principle that he knows[9] it [this multitude] by this unifying principle and that he obtains general awareness[10] of it [this multitude] before entering into it, such that he is safeguarded from missing that which might concern him and diverting his aspiration to that which does not concern him.[11] [Furthermore, it is befitting] that he knows its[12] aim in order to increase

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be in residential learning seminaries, sharing meals, praying daily prayers together, and studying throughout the day. Al-Fawzī, *Khulāṣa*, 6.

7. The intended meaning of "gems" is the principles mentioned in the *Īsāghūjī*.
8. In this paragraph, al-Fanārī is speaking generally about any multitude, regardless of whether or not it is a multitude of discipline-specific inquiries or a pile of gold coins. In the next paragraph he will get more specific and discuss sciences as multitudes of inquiries, regardless of whether these sciences have been collated in books or are uncollated and oral or practical. Then he will get more specific in the following paragraph and discuss the collated science of logic. In three steps he moves from the very general, to more specific yet still somewhat general, to the very specific science of logic.
9. Knowledge of the multitude in question—whether it is a general multitude of things such as the money one hopes to earn or more specifically a multitude of inquiries [*masā'il*] constituting a science that may or may not have been compiled in books—is understood to be conceptual knowledge (*ma'rifa taṣawwuriyya*) rather than assentive knowledge (*ma'rifa taṣdīqiyya*). It is to conceive of a given science from the perspective of its singular subject matter; *Arabic expressions* are the subject matter of syntax, and the *proof* [whether Quran, Sunna, consensus, or analogy] is the subject matter of Islamic jurisprudence. See Ṣāliḥ al-Ghursī, "Lecture 1," *Taṣjīlāt al-Fawā'id al-fanāriyya* (recorded lectures, Konya, Türkiye, n.d.).
10. Al-Fanārī's use of the term "*al-shu'ūr*" indicates general awareness rather than comprehensive knowledge of all particulars, the intent being that one knows the general subject matter and aim of a given science before gaining comprehensive knowledge of each of its inquiries and sub-chapters. Likewise, one comes to know that humans are rational or risible before actually investigating each individual human's capacity to reason or laugh.
11. One who properly knows this multitude via this unifying principle would then be able to distinguish between a matter that is included in this unified multitude and one which is not. So, the student of Islamic jurisprudence (*uṣūl al-fiqh*) would recognize that a discussion of the health benefits of a certain vegetable would not fall under the multitude of inquiries about the proof which is the subject matter of Islamic jurisprudence.
12. That is, he knows the aim or purpose of this multitude of matters.

his diligence and energy, and that his effort is not futility and misguidance.[13]

Why Offer the Definitions from Subject and Goal?

Since:

Every science[14] is a multitude (a) joined together by an essential[15] unifying principle[16] on account of which its inquiries[17] are counted as a single science—and it [the essential unifying principle] is their [the multitude of inquiries']

13. When one knows the answer to "Why do we have to study this?" it becomes important to the student and increases his or her diligence and desire to learn. Without knowing the aim of the science, it is less likely that one will be motivated to learn.
14. Moving from the discussion of the general multitude, he now addresses the specific multitude of a given science, regardless of whether or not it is collated in books. A science is a multitude of inquiries about the (1) subject matter of the science, (2) a subcategory of that subject matter, or (3) an essential property of that subject. Added to this is that one asks about the subject matter, subcategory, or essential property from a particular regard, perspective, or concern. For example, to inquire about the human body could be related to anatomy, body building, figure painting, fashion design, or a number of other sciences or arts. However, to inquire about the human body from the perspective of sickness or health makes this an inquiry from the science of medicine.
15. If this unifying principle enters into the essential nature of each individual part of the multitude, then it is an essential unifying principle. If not, then it is an accidental unifying principle. That is, an accidental unifying principle is external to the essential nature of the multitude. Al-Fawzī, *Khulāṣa*, 9.
16. The essential unifying principle with regard to a science is the subject matter of the science. All inquiries are about that subject matter; therefore, it is the essential unifying principle. As for matters that are external to the science, such as grammar being a tool for the proper study of Quranic exegesis (*tafsīr*), then that aspect of 'being a tool' is an accidental quality, external to the subject matter but still providing some of the glue that holds it all together.
17. An inquiry (*mas'ala*) is a proposition that asks about the occurrence of the nexus between the subject and predicate. The proposition "X is Y" consists of four conceptions: the conception of X (the subject), the conception of Y (the predicate), the conception of the nexus between X and Y (the verb 'to be'), and the conception of the occurrence or non-occurrence of this nexus (the judgment). An inquiry investigates whether or not the nexus has occurred. It asks, "Is it the case that X is Y?"

being[18] [inquiries] that investigate[19] properties that are essential[20] to a single thing [subject matter] whether this unity is actual or subjective, and [also (b)

18. Al-Fanārī's describing the essential unifying principle as "its being the [inquiries] that investigate properties that are essential to a single thing" was flagged by commentators as being a loose or imprecise manner of expression (*tasāmuḥ*), since the essential unifying principle is the subject of the science itself, not its being an investigation of properties essential to the subject. "…except that the commentator intended to indicate the mode of precisely defining the subject of the inquiries, so he chose this *tasāmuḥ*, relying on the apparent meaning." Al-Fawzī, *Khulāṣa*, 10.
19. The Arabic term *baḥth* is easily translated as "investigation," but it technically means 'predicating something of something else' (*ḥaml shay' ʿalā shay'*). So, in this sense, it is predicating of essential properties to the subject matter of the science. An inquiry (*mas'ala*) is a declarative statement (*khabar*) such as "X is Y" that is considered as a question: "Is it that X is Y?" X is the subject of the statement (*mawḍūʿ*) and Y is the predicate (*maḥmūl*). Furthermore, the subject is either from the subject matter of the science itself (*mawḍūʿ al-ʿilm*), a subcategory of it (*nawʿ min anwāʿihā*), or an essential property. For example, the subject of morphology is the word. A subcategory of 'word' is 'noun', 'verb', or 'particle'. An essential property would be 'the nominative case'. So, investigatory predication (*baḥth*) is the endeavor to predicate an essential property to the subject of the sentence, and the subject of the sentence is either the subject of the science itself, a subcategory of the subject of the science, or an essential property of the science. "The nominative case is indicated by the *ḍamma*" would be an example of an essential property (nominative case) of the subject of the science (the word) being subject to the predication of an essential property (the *ḍamma*).
20. Properties (*aʿrāḍ*) in this sense and without being qualified as essential or extrinsic (*gharība*) are predicates predicated to a thing while being external to that thing. Essential properties are those which connect to a thing by virtue of that thing's complete essence, such as the predication of amazement to humans; or to part of that thing's essence, such as volitional movement to a human by means of a human's being an animal; or to that which is coextensive with it, such as predicating laughing to human (due to laughing out of amazement). See Qūl Aḥmad and al-ʿImādī, *Ḥāshiyat Qūl Aḥmad ʿalā al-Fawā'id al-fanārīyya* (Istanbul: Dār Taḥqīq al-Kitāb, 2019), 86–7.

    Al-Fawzī:

    "[Essential properties are] those which apply to a thing by virtue of its complete essence such as the application of amazement to humans, or by virtue of its coextensive part (*li-juz'ihi al-musāwī*) such as the application of actual [as opposed to potential] perception to humans by means of humans being rational, or by virtue of a coextensive external thing, such as the application of laughing to humans by means amazement [which relies on something essential to humans, namely, rationality]. These three are essential properties, and what is other than them are extrinsic properties (*aʿrāḍ gharība*), which are not investigated in the sciences." Al-Fawzī, *Khulāṣa*, 10.

    Extrinsic properties include:

    (1) Properties predicated of a subject by virtue of something external and more general, such as predicating motion of a white object by virtue of its being a body (*jism*). Body is more general than white object, since objects could be red, black, green, etc., making body the genus of white objects.

    (2) Properties predicated of a subject by virtue of something external and more specific,

joined together by] an accidental unifying principle which follows the first unifying principle, such as their [the multitude of inquiries'] being a tool[21] and their fulfilling an aim [*ghāya*],

[it follows that]:[22]

it became the standard practice of scholars to begin [their texts] with general knowledge of the definition based on one of the two unifying principles, along with its aim and subject matter before entering into its inquiries.[23]

Definition of Logic Based on the Essential and Accidental Unifying Principles

So, we say with regard to the first of the unifying principles:

(1a) Logic is a science in which one investigates the essential properties [*al-aʿrāḍ al-dhātiyya*] of conceptions and assents in as much as they [conceptions and assents] serve to bring [the intellect of the student] to the unknown [conceptions and assents], or[24]

(1b) [Logic is a science in which one investigates] the essential properties of secondary intelligibles, which do not appertain to any matter in the extramental world, with respect to their applying to primary intelligibles, which appertain to matters in the extramental world.

With regard to the second unifying principle [we say]: "Logic is a set of canonical principles (*qānūn*) by which sound thinking may be distinguished

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such as predicating laughter of animals by means of their being human. Human is more specific than animal because it is a species of animal.

(3) Properties predicated of a subject by virtue of something external and entirely distinct (*mubāyin*), such as predicating heat of water. Heat is predicated of water by means of fire.

The three examples of extrinsic properties mentioned above are summarized from: Hamza Karamali, Marwan Tayyan, and Justin Poe, *Discerning Religious Truth*, American Society of Islamic Theology and Philosophy 2024.

21. Logic is an example of a multitude of inquiries whose accidental unifying principle is that it is a tool for the understanding of another science (i.e., *kalām*, *fiqh*, etc).

22. This is a very long sentence in the original: it begins with "since (*wa-li-anna*)" and finally gets to "the standard practice of the scholars…" as the conditional consequent clause (*jawāb al-sharṭ*) after quite a lot of detail. I have interjected "it follows that" to show the logical connection between the first half of the sentence and the second.

23. I have translated *masāʾil* as "inquiries" for clarity. It may also be translated as "topic-questions," which better indicates some of the shades of meaning found in the Arabic original.

24. This definition is that of the later scholars (*mutaʾakhkhirūn*) of logic, who objected to the definition that follows this which is the opinion of the earlier scholars (*mutaqaddimūn*).

from unsound thinking." Knowledge of the subject matter [*mawḍūʿ*] enters into the first definition according to the two schools [of the early and later logicians] and [knowledge of] the aim [*ghāya*] enters into the second.

The Chapters of Logic

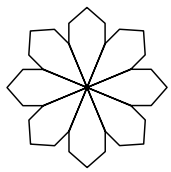
Then we say, since the aim of logic is knowledge of the validity of thought and its invalidity, and thought is either for obtaining conceptual [*al-taṣawwuriyya*] or assentive [*al-taṣdīqiyya*] unknowns, logic has two sections: conceptions and assents. For each of these two sections there are points of departure[25] and aims, so its subdivisions are four. The points of departure for conceptions are the five universals, and its aims are the definition [lit., "explanatory saying"].[26] The points of departure for assents are propositions and their properties,[27] and the aims are the syllogism [*al-qiyās*] [qua formal logic].[28]

Furthermore, the Syllogism [qua Material Logic] has five subdivisions; they are called the five arts [*al-ṣināʿāt al-khams*]. The reason they are limited [to five] is that if the syllogism is composed of certain premises [*al-yaqīniyyāt*], it is called demonstration [*burhān*], and if from probabilistic premises, [then it is called] rhetorical argument [*khiṭāba*]. If it is composed of conceded premises,

25. Points of departure are not investigated as essential qualities of the science since they do not lead to its primary goal (*ghāya*). Aims, on the contrary, are qualities and properties that are primarily investigated as they lead to the goal of the science. Al-Fawzī, *Khulāṣa*, 16.
26. The plural "aims" is retained despite the aims here being identified as the singular expression "the explanatory saying" since the aims are actually four explanatory sayings whose understanding is sought: complete definitions, incomplete definitions, complete descriptions, and incomplete descriptions.
27. Properties such as contradiction (*tanāquḍ*) and conversion (*ʿaks*).
28. Al-Abharī uses the singular term "syllogism" (*qiyas*) which indicates that the aims of assents (*taṣdīqāt*) are those inquiries whose investigations are primarily sought from this category. However, in the following sentence he says "furthermore, the syllogism has five subdivisions," which might give the mistaken impression that what is meant by "the aims of assents" are the Five Arts (i.e., material logic). However, *qiyās* can be considered from two perspectives, both of which are aims of assents. The first reference to *qiyās* as the aims of assents is the subject of formal logic (*al-qiyās min jihat al-ṣūra*) and is the fourth chapter of logic. The second reference to *qiyās* with regard to the Five Arts pertains to the subject of material logic (*min jihat al-mādda*). Formal logic is the fourth subcategory of logic, and the five subcategories of material logic are counted as individual chapters of logic, making the total number of chapters nine: (1) the five universals, (2) definitions, (3) propositions, (4) the syllogism qua formal logic, then the five arts: (5) demonstrative argument, (6) dialectical argument, (7) rhetorical argument, (8) poetical argument, and (9) fallacious argument (sophistry and contentious disputation). However, as discussed below, some made the chapter on expressions (*alfāẓ*) a tenth chapter.

it is called dialectical argument [or debate [*jadal*]], and if from imaginative premises, it is called poetical argument [*shiʿr*]. If it is composed of premises that resemble certain or probabilistic premises, it is called fallacious argument [*mughālaṭa*], and fallacious argument is either sophistry [*safsaṭa*] or contentious disputation [*mushāghaba*].

The five arts along with the four divisions[29] are the chapters of [the science of] logic. Some of the later scholars[30] added investigations into verbal expressions as a part of them [the chapters of logic], and so they became ten. Since the author wanted to give a brief glance into each of these chapters by way of facilitation for the student who intends to enter into the sciences,[31] he ordered the chapters in accordance with what we have indicated [previously]. So, putting the introductory investigations of the *Īsāghūjī* [the five universals] first became necessary for him.



29. The four divisions are:
    (1) The five universals
    (2) Definitions
    (3) Propositions
    (4) Syllogism (with respect to its form as opposed to its matter)
30. Scholars such as Fakhr al-Dīn al-Rāzī and al-Kātibī counted expressions as the tenth chapter of logic. Al-Fawzī, *Khulāṣa*, 18.
31. What is intended here by "the sciences" is the science of logic itself. Al-Fawzī mentions that the plural is used here to indicate the importance of logic, since what is sought from all the sciences is obtained by means of it, or the plural is used perhaps to indicate the multitude of inquiries in the science. Al-Fawzī, *Khulāṣa*, 19.

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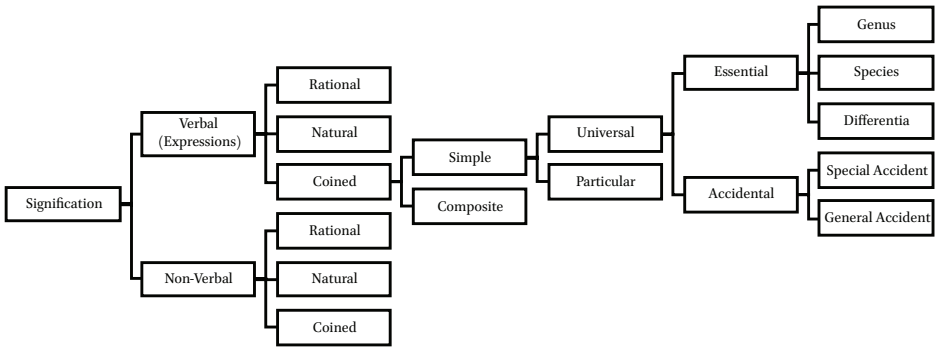
The Points of Departure for Conceptions

Why Investigate Expressions and Significations First?

He said, after mentioning the introductory remarks: (*īsāghūjī*), that is "this is the introductory chapter," that is, the five universals. Since the higher node [of the classification] from which they [the five universals] are divided is the essential [*dhātī*] and the accidental [*ʿaraḍī*], which are subdivisions of the universal, itself a subdivision of the simple [*mufrad*], which is a subdivision of the expression [*lafẓ*], it was necessary that he turn his attention to investigations of the expression and put them [investigations into the expression] before all else.



Significations

Since understanding of meaning is [obtained] from the expression with regard to its [the expression's] signification of it [the meaning], it first was necessary

that he turn his attention to and undertake to mention[1] the definition of significations [*al-dalālāt*] and their division. From this, it is known that the author did not count the investigations of expressions as a chapter from the science [of logic]; rather, he mentioned them [investigations into expressions] in the chapter of *īsāghūjī* [the five universals] as an introduction to the inquiries of [the science of logic].

Definition and components of signification

We say: Signification [*al-dalāla*] is a thing's being in a state[2] such that either certain knowledge of it [the thing] entails certain knowledge [*al-ʿilm*] or supposition [*al-ẓann*] of another thing, or supposition of it [the thing] entails supposition of another thing.[3] The first thing is called a demonstrative proof [*dalīl burhānī*] and a demonstration [*burhān*],[4] if supposition does not come between [the signifier and signifcate]. If that is not the case,[5] then it is called a persuading [*dalīl iqnāʿī*] or indicative [*dalīl amāra*] proof.[6] The second thing is called the significate.

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1. H: "…it first became necessary to turn his attention to and undertake to mention the definition of signification…" (*wajaba al-taʿarruḍ wa-l-taṣaddī*).

   K: Al-Fawzī adds an interjection, "*ay al-taʿarruḍ*," that is: "(…it first became necessary to undertake to mention), that is, turn his attention to (the definition of signification…)" (*wajaba al-taṣaddī*) *ay al-taʿarruḍ* (…).
2. K: "*bi-ḥaythu*"; H and T: "*bi-ḥālatin*."
3. There are three categories of implication (*luzūm*) to consider:
   (1) Certain knowledge of the state of a thing implying (*luzūm*) certain knowledge of another thing, such as a constructed object signifying the constructor. A house is an example of a constructed object whose state of being constructed (and not the result of random chance coming together of wood, nails, and shingles) signifies that there must have been a builder.
   (2) Certain knowledge of the state of a thing implying supposition of another thing, such as rain clouds probabilistically signifying rain. While past experience might inform one that a particular color and shape of a cloud more often than not entails rain, it is possible that no rain will fall from such a cloud.
   (3) Supposition of the state of a thing implying supposition of another thing, such as dark clouds probabilistically signifying rain. However, in this case, the dark clouds turn out to be smoke clouds from a forest fire. Al-Fawzī, *Khulāṣa*, 22.
4. This first is called *dalīl burhān*, according to the theologians, and a *burhān*, according to the logicians. Al-Fawzī, *Khulāṣa*, 22.
5. That is, if it is not free of being mixed with supposition, then it is called a persuading or indicative proof.
6. It is called persuading proof (*dalīl iqnāʿī*), according to the theologians, or indicative proof (*dalīl amāra*), according to the logicians. Al-Fawzī, *Khulāṣa*, 22. Simplified, we might call these probable significations.

Verbal and nonverbal signification

Its [signification's] division [*taqsīm*] is that the signifier [*al-dāll*], if it is an expression, then it [the signification] is verbal signification, and if not, then it is nonverbal. It is [called] coined if [the signifier signifies the significate] by means of coining, such as lines,[7] numerical hand signals [*ʿuqūd*],[8] bodily indications [*ishārāt*],[9] and signposts [*al-nuṣab*].[10] If not, then it is rational signification, such as the universe's signification of the Creator.[11] Verbal signification, if it is by means of coinage, then it is coined. If not, then if it is because the nature [*ṭabīʿa*] of the speaker necessitates uttering it [the expression] when [he is] afflicted with its meaning, such as the signification of *uḥ*[12] of having a cough, then it is natural [*ṭabīʿiyya*]. If not [by nature], then it is rational [*ʿaqliyya*], such as the expression heard from behind a wall signifying the speaker.[13]

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7. That is, lines that are written to signify something. Also, the dividing line between the property of Zayd and ʿAmr. Al-Fawzī, *Khulāṣa*, 22–3. Contemporary examples include lines on roads signifying lanes and "yard lines" that signify distance from the end-zone on a football field.
8. These particular hand signals were done with one hand yet signified larger numbers, such as a closed fist with the index finger pointed straight and thumb parallel (like the *tashahhud* of the Mālikī school) and making a circle with tip of the thumb and middle finger and the index finger outstretched (like the *tashahhud* of the Shāfiʿī school). The first signal signified the number 53, while the second signified the number 23. For a general explanation, see the editor's note in Abū Jaʿfar al-Ẓāhirī (ed.), *Ḥāshiyat Qūl Aḥmad*, 128n.1. For a detailed and illustrated explanation, see E. M. H. Salejee, *Sunnats* (New Delhi: Islamic Book Service, 2008), 170–80. I am indebted to Justin Poe for bringing Salejee's work to my attention.
9. Indications (*ishāra*) can include the nodding of the head to signify "yes" or the shaking of the head to signify "no." They can also include pointing with the finger to signify a direction or giving a "thumbs up" with the hand to indicate approval or the image of open hands as in social media emojis to ask for prayer. As I understand it, these are general bodily indications with an intended and known meaning. These will differ from culture to culture. They are different from *ʿuqūd*, which are more specific in meaning, and would be more analogous to sign language rather than mere indication.
10. *Nuṣab* is the plural of *nuṣba* and not *naṣb* (idols). It includes an object that signifies a meaning, like a stop light signifying a command to stop, a *miḥrāb* sigifying the *qibla*, or a rock pile (cairn) sigifying a turn in a trail. Al-Fawzī and Qūl Aḥmad do not explain what *ʿuqūd*, *ishārāt*, and *nuṣab* mean, perhaps because they are commonly discussed elsewhere under the heading 'the four signifiers' (*al-dawāll al-arbaʿa*).
11. Al-Fanārī does not include natural nonverbal significations, such as blushing signifying embarrassment, while this category is mentioned in other texts.
12. *Uḥ* represents the sound of a cough, beginning with a glottal stop and ending with the restricted passage of air through the throat.
13. The sound of a speaker's voice from behind the wall signifies the existence of that speaker. What is signified is the existence of a speaker, not the meanings of the speaker's words.

Division of coined verbal signification into concordance, containment, and necessary implication

The intended object of study for the logician[14] is coined verbal signification [*al-dalāla al-lafẓiyya al-waḍʿiyya*] as is clear. It [the coined verbal signification] is the verbal expression's[15] being such that when it is mentioned, the meaning is understood from it due to knowing the coinage.[16] It [the expression that signifies by coinage] is what is divided into concordance, containment, and necessary implication, as he said:

(The expression that signifies by coinage), not the nonverbal signifier and not the expression that signifies by nature or by the intellect[17] (signifies the entirety of that [meaning] for which it was coined by concordance [*muṭābaqa*]) due to its [the expression's] being in accordance with it [the meaning for which the expression was coined] (and [the expression that signifies by coinage signifies] part of it [its meaning]), that is, [the expression] signifies part of that [meaning] for which it [the expression] was coined by containment [*taḍammun*] due to its [the expression's] signifying that [meaning] which is contained within the full meaning for which the term was coined [*mawḍūʿlahu*], (if it had), that is, [if] that [meaning] for which the expression was coined [had] (a part), as will be explained in the coming example.

Clarification: In some cases, containment and/or necessary implication is not possible

If it [the meaning] does not have a part—as in the case of indivisible matters [*al-basāʾiṭ*],[18] such as the Necessarily Existent Most High and Sacred and the

14. R: "for logic"; K and H: *manṭiqī*, that is, the logician. Manuscripts also differ. See T. Alternate recension: The intended object of study and examination for the science of logic is "the coined verbal signification."
15. Henceforth, "verbal expression" (*lafẓ*) will be shortened to "expression," since it is understood that we are not studying nonverbal expressions.
16. That is, the meaning is understood from the expression due to the listener's knowing that it was lexically coined for this meaning.
17. It is the coined verbal signifier that is divided into concordance, containment, and necessary implication, rather than the other five possible forms of signification being divided as such. The nonverbal signifiers by coinage, such as hand signals, by nature, such as blushing, and by intellect, such as the universe sigifying the Creator, are not divided into concordance, containment, and necessary implication. Likewise, the verbal signifiers by nature, such as coughing, or by intellect, such as the sound of a voice behind a wall sigifying someone speaking there, are also not divided into concordance, containment, and necessary implication.
18. Containment, by definition, is an expression's being used to signify part of the complete

[indivisible] Euclidian geometrical point [*al-nuqṭa*]—then containment is inconceivable in these two examples.[19]

From this it is known that concordance does not entail containment, but not vice versa.[20] Likewise, necessary implication does not entail containment, because the implicant [*malzūm*][21] might be from the indivisible matters [*al-basā'iṭ*], while it does entail concordance. As for its [concordance] entailing necessary implication, the Imam [al-Rāzī] maintained that it did,[22] but this

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composite essential meaning for which that expression was coined. If the meaning for which an expression was coined to signify is not a composite of established and affirmative qualities, then there is no way for that expression to be used to signify only part of the meaning for which it was coined, since that meaning is non-composite and therefore does not have a part. Being non-composite or simple does not imply that a meaning cannot contain a multitude of privative attributes—like non-spatial or free-of-need—rather, it cannot contain a multitude of established and affirmative (*ithbātī*) attributes. See the following footnote.

19. "Some have objected to using 'the Necessary Existent' (meaning, Allah) as an example of a simple concept (*al-basīṭ*)—which is the contrary opposite (*ḍidd*) of a composite—bringing as their proof that Allah Most High is not attributed with simplicity nor composition. [This objection] is mistaken (*wahm*) because the intended meaning of bringing the Necessarily Existent as an example is that the Beautiful Names of Allah (*al-asmā' al-ḥusnā*) signify the most sacred Essence [of Allah], which is free of need and transcendently above and beyond imperfection, origination, composition, and other than that from among that which cannot be rationally conceived with regard to the beginninglessly eternal, glorified is He. If you look at these meanings, you will see that they are from the perspective of negation, not the perspective of affirmation (*ithbāt*). So even if there are multiple meanings given, they remain from the category of negation, and because of that, they remain simple, since negation is privation, and privation does not exist. So, this is the perspective from which the examples are given…." So '*al-wājib al-wujūd*' signifies the Essence of Allah that is free of need, transcendently above and beyond similarity, deficiency, and contingency. See the editor's note in al-Ẓāhirī (ed.), *Ḥāshiyat Qūl Aḥmad*, 137n.1.

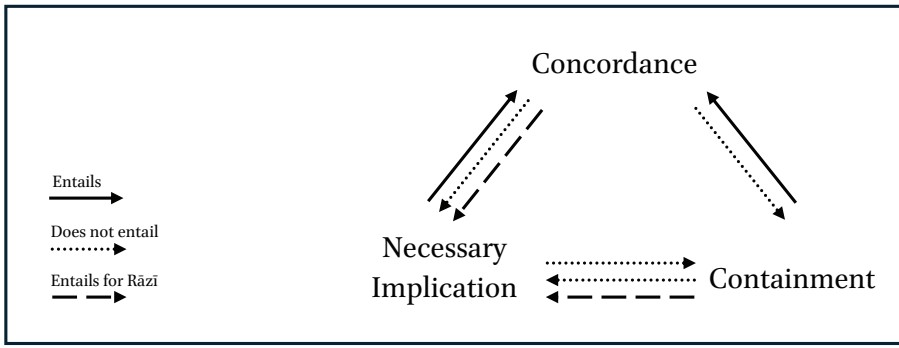
20. Concordance does not necessarily entail containment, as the complete essential meaning might be simple/non-composite (*basīṭ*), yet containment necessarily entails concordance, since it is by definition a mode of signification that signifies a part of a composite meaning. Likewise, concordance does not entail necessary implication, according to the relied upon position, though Fakhr al-Dīn al-Rāzī held otherwise. Necessary implication does entail concordance, since it is connected to the original complete essential meaning from which one's mind moves to the necessarily implied meaning. Necessary implication does not entail containment, as the essential meaning which is the implicant (*malzūm*) from which one derives the implicate (*lāzim*) might be non-composite and therefore not within the scope of containment which, by definition, means signification of part of a composite meaning.

21. The implicant in this context is the meaning for which the expression was coined. Al-Fawzī, *Khulāṣa*, 28.

22. He held that every meaning has an evident implicate in the more specific meaning (*lāzim*

opinion is not validated [*mutaḥaqqiq*/*muḥaqqaq*].[23]

(And [the coined signifying expression signifies] that [external meaning] which is entailed by it [i.e., by the meaning for which the expression was coined]),[24] that is, [entailed by] its meaning for which the expression was coined (in the mind)—through mental entailment [*luzūman dhihniyyan*]—(by



bayyin bi-l-maʿnā al-akhaṣṣ), the least of which would be that it is not other than itself. If you conceive of the essence of a thing, it entails that it is not other than that thing. X signifies 'not other than X' by necessary implication, since 'not other than X' entails X. Al-Fawzī, *Khulāṣa*, 28.

23. This opinion is not held by the majority of scholars. Rather, they held that it was possible that a meaning for which the expression was coined could exist that did not have an evident implicate in the more specific meaning (*lāzim bayyin bi-l-maʿnā al-akhaṣṣ*). K: *mutaḥaqqiq*; A: *muḥaqqaq*.

24. The pronoun "it" does not return to "the external meaning" or "the coined expression"; rather, it points forward to "the meaning for which the expression was coined." This is not immediately apparent from the text, especially with al-Fanārī's interjections, but it is readily understood from the commentaries.

"…that is, [the coined signifying expression] signifies a meaning external to the meaning for which the expression was coined, but not unrestrictedly; rather, [that external meaning] is necessarily entailed by the meaning for which the expression was coined by means of evident mental entailment in the more specific meaning, while [the expression also] signifies that [meaning] that entails [the external meaning]." Al-Fawzī, *Khulāṣa*, 28. Restated, the term 'human' signifies via necessary implication a meaning external to 'rational animal' such as 'capable of writing', which is rationally entailed by 'rational animal'.

necessary implication)[25] because[26] it [the coined signifying expression] does not signify every external matter[27]—for if it did, then everything would be a signifier [*dāll*] of everything (else)[28]—and [the expression does] not [signify] something arbitrary,[29] due to the lack of comprehensibility; rather,

25. The coined signifying expression signifies an external meaning which is mentally entailed by the meaning for which the expression was coined by necessary implication. The term 'human' signifies 'capable of writing' by necessary implication (*iltizām*) because 'capable of writing' is mentally entailed by 'rational animal'.

    There are three key elements that are hidden in the pronouns and separated by long sections of commentary that need to be unpacked in order to properly understand this statement. (1) The coined signifying expression which signifies an (2) external concomitant meaning which is (3) entailed by the meaning for which the expression was coined. Where does this entailment of the external meaning by the meaning for which the expression was coined happen? In the mind. How does the coined expression necessarily imply the external meaning? By necessary implication (*iltizām*).

26. It is called necessary implication due to the necessary entailment of the specific external meaning by the meaning for which the expression was coined. The context of the use of the word, however, dictates whether or not this entailment occurs. For example, if 'human' is in answer to "What carved these letters on the stone?" it is because humans, and only humans, are capable of writing (angels and jinn excluded). However, if 'human' were given in answer to the question "Which direction is Mecca?" then there is no necessary implication of the meaning 'northeast from Boston' from 'rational animal' which is the meaning for which the expression 'human' was coined.

27. Qūl Aḥmad, *Fawā'id*, 32. "This point is extraneous and unnecessary…"

    Al-Fawzī says: "(…does not signify every matter external) to the meaning for which it was coined. For example, the expression '*insān*' signifies that which 'rational animal' entails, namely, 'capable of knowledge', which is external to 'rational animal'; however, it does not signify every meaning external [to 'rational animal'] such as 'hitting' and 'abuse' or 'eating', 'drinking', and 'sleeping', and so on (for if not), that is, if the expression signified every matter external to the meaning, (then everything) from among all things (would be a signifier of everything [else], and this would entail that every signifier would be both signifier and significate, and understanding the meaning for which the expression was coined from the expression would entail understanding an infinitude of matters, and that is absurd." Al-Fawzī, *Khulāṣa*, 29.

28. If 'human' signified not just meanings mentally entailed by 'rational animal' but rather it also signified meanings that are not entailed by 'rational animal', then it could signify any and all possible meanings which themselves would signify all other meanings. This leads to a number of absurdities such as unrelated meanings pointing to each other through necessary implication and even an infinite number of meanings pointing to each other, which is absurd. See previous footnote.

    The key to this seems to be four elements: the signifying expression (e.g., 'human'), the implicant (*malzūm*) / meaning for which it was coined (*mawḍūʿ lahu*) (e.g., 'rational animal'), the implicate (*lāzim*) (e.g., 'capable of writing'), the *luzūmiyya* (the entailment of 'capable of writing' by 'rational animal').

29. That is, something not connected to the meaning for which the expression was coined nor appropriate for it such that the listener would not be able to comprehend such an

it signifies an external matter that is the implicate [of its meaning for which the expression was coined]. So, the significations are three.

(Such as 'human', for it signifies) the complete ('rational animal' by concordance, and [it signifies] one of them), that is, [it signifies] just 'animal' or just 'rational' (by containment, and [it signifies] 'receptive to knowledge' and 'capable of writing' by necessary implication).

Three Objections to the Definitions of the Modes of Signification

At this stage,[30] there are three objections:[31]

The first objection

(1) The first is that the definitions of these three [terms] are each invalidated by the other[32] two;[33] for example, if we hypothesize that [the expression] 'the sun' were coined [in three separate instances] for…

(a) the celestial body [i.e., the ball of hydrogen and helium itself but not the light it emits]

(b) the light [that is emitted by the celestial body]

(c) and the combination of the two [both the celestial body and the light it emits]

…then the signification [of the expression 'the sun'] of light, for example,

unrelated and disconnected concept that has nothing to do with the meaning for which the expression was coined. Al-Fawzī, *Khulāṣa*, 29.

30. At this stage in classifying and defining the three means of signification, there are objections… Al-Fawzī, *Khulāṣa*, 29.

31. I have translated *as'ila* (lit. questions) as "objections," as it is a technical term in the science of disputation (*ādāb al-baḥth wa-l-munāẓara*) wherein one raises an objection that the claimant must answer.

32. K narrates al-Fanārī as saying "each of them is invalidated by the other two significations (*bi-l-dalālatayn al-ukhrayayn*)"; whereas A and H have "each of them is invalidated by the other two (*bi-l-ukhrayayn*)."

33. That is, the definition of concordance could also be applied to containment and necessary implication, and the definition of containment could be applied to concordance and necessary implication, and the definition of necessary implication could be applied to concordance and containment. Therefore, the definition of each of these three modes of signification do not sufficiently exclude other than the intended definiendum, thereby invalidating it.

could possibly be[34] (b) concordance,[35] (c) containment,[36] and (a) necessary implication.[37] So, the stipulation of "by means of coining" is necessary in each

34. The order of hypothetical coinages and the respective implications of 'sun' signifying 'light' does not properly correspond. Al-Fanārī says: "…if we hypothesize that [the expression] 'the sun' were coined [in three separate instances] for (a) the celestial body, (b) the light, and (c) the combination of the two, then the signification of 'the light' [by the expression 'the sun'], for example, could possibly be (b) concordance, (c) containment, or (a) necessary implication."

    It would have been clearer had al-Fanārī ordered the hypothesized examples of coinage as follows:

    the light (b)
    combination of the two (c)
    the celestial body (a).

    The example he gives of signification ('sun' signifying 'the light') would follow more clearly:

    'Sun' signifying 'the light' when originally coined as 'the light' (b) would be *concordance*.

    'Sun' signifying 'the light' when originally coined as 'the combination of light and celestial body' (c) would be *containment*.

    'Sun' signifying 'the light' when originally coined as 'the celestial body' (a) would be *necessary implication*.

35. In this case, 'sun' signifying 'the light' would be concordance because in example (b) above it was the complete meaning for which the expression was coined for the term 'sun'.

36. In this case, 'sun' signifying 'the light' is an example of containment because in (c) above the term 'sun' was coined for the meaning of both the celestial body and the light. So, therefore, it would be sigifying a part of the whole which is containment.

37. In (a) above, where the term 'sun' was coined to signify 'the celestial body', 'sun' would signify 'the light' by necessary implication. This is because the meaning 'the celestial body' entails the meaning 'the light'; 'the light' would be a meaning external to 'the celestial body', but it would be mentally entailed by 'the celestial body'.

of them[38] as they[39] did out of precaution to avoid objection.[40]

Two responses to the first objection

The response [to this objection] is from two angles:

The first is that those matters which differ according to differing points of view [*iʿtibārāt*], the stipulation of perspectives [*al-ḥaythiyyāt*] is intended in their definitions, whether or not they [the stipulated perspectives] are mentioned. So, since all of [the logicians] sufficed with intending them [perspectives] without mentioning them in the definitions of universals—where it is possible that one thing is a genus, species, differentia, special accident, and general accident, such as 'the colored thing', for it is a genus with regard

38. In each of the definitions of the three terms, the disputant claims that they should have been defined as follows:

    Concordance: The coined signifying expression signifies—*by means of the coining*—the entirety of the meaning it was coined for by concordance.

    Containment: The coined signifying expression signifies—*by means of the coining*—part of the meaning it was coined for by containment.

    Necessary implication: The coined signifying expression signifies—*by means of the coining*—that meaning which is mentally entailed by the meaning it was coined for by necessary implication.

    What is the means or cause that causes the signifying expression (*dāll*) to signify the signified meaning (*madlūl*)? It is the means (*wāsiṭa*) of coinage. By means of the coining of the coiner, a word can signify a specific meaning. So, 'sun' signifies 'the light' by concordance by means of the coiner having coined 'sun' for the meaning 'the light'. 'Sun' signifies 'the light' by containment by means of the coiner having coined 'sun' for the meaning 'the celestial body and the light'. 'Sun' signifies 'the light' by necessary implication by means of the coiner having coined 'sun' for the meaning 'the celestial body'. The cause of the signifier sigifying the significate is the coining of the coiner. Those who dispute al-Abharī's omission of the specification of the causal role of coining in the term's sigifying a specific meaning by either concordance, containment, or necessary implication claim that this omission entails that each definition could include those things embraced by the other two definitions.

    The objector's claim is that without mention of the means of signification in the definitions of each of the modes of signification, then 'sun' signifying 'the light' could be either concordance, containment, or necessary implication. Implicit in the objection is that in order for these technical terms to be properly distinguished from the other, there should be no instance in which two or more are applicable to one act of signification. One should be able to identify only one mode of signification for each instance of signification. To this objection, al-Fanārī will offer two responses. Al-Fawzī, *Khulāṣa*, 30.

39. "They" refers to the logicians. Quṭb al-Dīn al-Rāzī appears to have taken this opinion in his commentary on the *Shamsiyya* of al-Kātibī. Quṭb al-Dīn al-Rāzī, *Taḥrīr al-qawāʿid al-manṭiqiyya fī sharḥ al-Risāla al-shamsiyya* (Qom: Intishārāt Baydār, 1426AH), 85–9.

40. That is, in order to avoid an objection that the definition is invalid, the author al-Abharī should have included "by means of coining" in each of the three definitions, as discussed previously.

to 'black', a species with regard to 'possessor of modality', a differentia with regard to 'solid' [*al-kathīf*], a special accident with regard to 'body' [*al-jism*], and general accident [*ʿaraḍ ʿāmm*] with regard to 'animal'—the author [al-Abharī] sufficed with [intending but not mentioning] it [the stipulated perspective] here.

The second [angle in responding to this objection] is that rendering a determination consequent to a derived term [*al-mushtaqq*] indicates the causal influence of the source term [*ʿilliyyat al-maʾkhadh*].[41] Thus, rendering each of the three significations [concordance, containment, and necessary implication] consequent to 'the coined signifying [expression]' [*al-dāll bi-l-waḍʿ*][42] indicates that naming the signification "concordance," "containment," or "necessary implication" is due to this signification being signification by coinage for the complete meaning or for a part of it or its necessarily entailed meaning [implicant, *malzūm*].

The second objection

(2) The second [objection] is that there is no need to qualify "signification by necessary implication" with "mental entailment" [*al-luzūm al-dhihnī*][43]

41. This is a hermeneutical maxim (*qāʿida*), in essence saying: The ruling follows from the derived term since its source of derivation is the very cause for that ruling. So, as found in the Quran: "As for the male thief (*sāriq*) and the female thief (*sāriqa*), cut off their hands" (Q 5:38), the ruling is 'cutting off of the hand' and the cause of that ruling (*ratio legis*) is 'theft' (*sariqa*). The ruling of 'cutting off the hand' follows from "thief" since "thief" derives from "theft." This now applies to the example of the definitions for concordance, containment, and necessary implication. The ruling in this case is '*naming* these significations (*dalālāt*) either concordance, containment, or necessary implication.' The derived term is "the coined signifying (expression)" (*al-dāll bi-l-waḍʿ*). Its source of derivation is "the signification by coinage for the complete meaning of what it was coined for" (*al-dalāla bi-l-waḍʿ li-tamām mā wuḍiʿa lahu*) or "the signification by coinage for part of what it was coined for" or "the signification by coinage of its entailed meaning (*malzūmihi*)." So when the author used "the coined sigifying (expression)" in the definition of concordance (i.e., "*the coined signifying expression* signifies the complete meaning of what it was coined for"), it was derived from the fuller statement: "the signification by coinage for the complete meaning of what it was coined for." This fuller statement is the cause (*ʿilla*) for naming this signification concordance. The same logic applies to containment and necessary implication. Al-Fawzī, *Khulāṣa*, 32.

42. It should be realized that "*al-dāll bi-l-waḍʿ*" is a phrase drawn from the full definition "*al-lafẓ al-dāll bi-l-waḍʿ yadullu ʿalā tamām mā wuḍiʿa lahu*…."

43. That is, the second objection raised is that there was no need for al-Abharī to qualify the phrase "signification by necessary implication" with "mental entailment" when he said "… that which is entailed by it—in the mind—by necessary implication…"

because the purpose of stipulating entailment [*luzūm*][44] is to validate the transference [from the original meaning for which the expression was coined to its necessarily implied meaning [*lāzim*] and to regulate[45] the [necessarily implied] signification, and these are obtained by any entailment [mental or extramental]; otherwise, entailment would not be entailment.

Response to the second objection

The response [to this objection] is that we do not submit to [the claim] that they[46] are obtained by external entailment, because mental entailment is its [the implicate's (*lāzim*)] being such that when the named thing[47] is conceived, the conception of the implicate [*lāzim*] is entailed, whereupon the transference[48] is realized. External entailment is the implicate's [*lāzim*] being such that when the named thing [*al-musammā* / *al-malzūm*] is actualized in the extramental world, the realization of the implicate [*lāzim*] in the extramental world is entailed;[49] but the mind's movement from it [the implicant

44. The aim of the logicians in stipulating necessary entailment between that which is signified by concordance and that meaning external to the meaning for which the expression was coined that is signified via necessary implication is validating transference from the meaning for which the expression was coined to the implicate, since the mind of the listener does not transfer to any matter external to the meaning signified by concordance when there is no entailment (*luzūm*) between them. Al-Fawzī, *Khulāṣa*, 33.
45. This condition returns to the notion that signification by necessary implication is precisely delimited and regulated so as to avoid an endless loop of signification between all things, as discussed previously. Al-Fawzī, *Khulāṣa*, 33.
46. "They" refers to "transference" and "to regulate the signification," mentioned previously.
47. The named thing is the implicant (*al-malzūm*).
48. The movement or transference from the meaning for which the expression was coined to the entailed meaning.
49. The term 'snow' signifies the meaning of 'white' by necessary implication, since 'white' is not part of the meaning for which 'snow' was coined. Mental entailment would be that the term 'snow' entails the meaning 'white' such that when one conceives of the meaning of 'snow' (i.e., crystalized frozen precipitation) one conceives of the meaning 'white'. External entailment would be that the term 'snow' entails the meaning of 'white' such that when snow is witnessed and confirmed to exist in the external world, then the whiteness also exists and is confirmed. If the implicant (*malzūm*) is actualized in the extramental world, so too is the implicate (*lāzim*); however, just because the implicate (*lāzim*) is actualized in the extramental world, that does not entail that the implicate (*lāzim*) is conceived through mental entailment. One might hear the word 'snow' in answer to the question "What's the weather like outside?" but one's mind may only go to 'crystalized frozen precipitation' by concordance, 'precipitation' by containment, or 'slippery roads' by necessary implication of another meaning. In this latter case of necessary implication, the mind was not compelled by necessity to move to the meaning of 'white'; there were other possible meanings to be understood.

(*malzūm*)] to the implicate [*lāzim*] is not entailed by that.[50] How [could the purpose—transference of meaning and regulation of signification by necessary implication—be obtained]? For if external entailment were a condition, then signification by necessary implication would not be realized without it, but that is not the case.[51] 'Blindness' [for example] signifies 'sight' by necessary implication because it is the lack of sight in one for whom seeing is in his nature, and 'seeing' is mentally entailed by 'lack of sight' while they are mutually exclusive in the extramental world.[52]

The third objection

(3) The third [objection] is that 'receptive to knowledge' and 'capable of writing' are not valid examples of the signified by necessary implication [*al-madlūl bi-l-iltizām*][53] because conception of them ['receptive to knowledge' and 'capable

50. That the implicate (*lāzim*) is actualized in the extramental world upon actualization of the implicant (*malzūm*) does not entail that implicate (*lāzim*) is conceived in the mind when the implicant (*malzūm*) is conceived.
51. In the following example, it is clear that transference and regulation of entailment do not always occur in the extramental world despite having occurred mentally. The mind conceives of 'sight' when it conceives of 'blindness', but the existence of blindness in a particular individual in the extramental world does not entail sight in that same individual; indeed, sight and blindness are mutually exclusive and cannot co-exist in a single locus; one's right eye cannot be both seeing and blind.
52. In the case of the term 'blindness', there can be mental entailment of the meaning 'sight', but there cannot be extramental entailment of sight. This is an example where the mental conception of the implicant (*malzūm*) mentally entails the implicate (*lāzim*), but realization of the implicant (*malzūm*) in the extramental world does not lead to realization of the implicate (*lāzim*) in the extramental world. The case of 'blindness' is one wherein there is mental entailment without external entailment. The example of 'snow' is one wherein there is external entailment when snow and white are realized in the extramental world, but not necessarily in the mind (as one might infer 'slippery roads' or 'no school' or 'cold' instead of 'white'). Therefore, the definition of necessary implication given merely as "the coined signifying expression signifies that external meaning entailed by its meaning for which the expression was coined by necessary implication" without stipulating "in the mind" would be insufficient, and in fact would itself lead to contradictions. Therefore, al-Fanārī tells us that al-Abharī was correct to stipulate "in the mind"; otherwise, the movement from the meaning for which the expression was coined to the inferred meaning may not have occurred, as in the case of external entailment of 'white' by 'snow'.
53. Necessary entailment occurs such that whenever one conceives of the implicant (*malzūm*) one immediately conceives of the implicate (*lāzim*). However, in the case of conceiving of 'human', one does not instantaneously conceive of 'receptive to knowledge' or 'capable of writing'. A better example, the objector states, would have been the evenness of two, for every time one conceives of 'two' one conceives of 'evenness'. Al-Fawzī points out that even this opinion has its critics, who instead considered the example of 'blindness' signifying 'sight' by necessary implication as the best example. Al-Fawzī, *Khulāṣa*, 35.

of writing'] is not entailed by conception of 'human'. It would have been better to give as an example 'the evenness of two' [as the implicate of 'two'.]

Response to the third objection

The response [to this objection] is that mental entailment between 'human' and the two aforementioned examples of receptivity [to knowledge and writing] is *evident entailment by the more general meaning* [*al-luzūm al-bayyin bi-l-maʿnā al-aʿamm*],[54] yet the definition given previously[55] was by *evident entail-*

54. The evident entailment by the more general meaning requires that one conceive of the implicate (*lāzim*), the implicant (*malzūm*), and the nexus between them all together in order to determine whether or not the entailment in fact is accepted. It requires conception of three parts and possible additional contemplation about the relationship of the terms and the validity of the nexus-ascription, whereas the evident entailment by the more specific meaning only requires that one conceive of the *malzūm* in order to conceive of the *lāzim*.

55. According to al-Fawzī, the previously given definition was for "mental entailment" (*al-luzūm al-dhihnī*) rather than for "necessary implication" (*al-dalāla al-iltizāmiyya*): "Mental entailment is the implicate (*lāzim*) being in a state such that conception of the thing named (*al-musammā*) entails conception of it [implicate (*lāzim*)]." That this is the definition that al-Abharī had in mind is discernable from his definition of necessary implication, wherein he said, "and [signifies] that which is entailed by it in the mind by necessary implication." The definition of mental entailment was by *the evident entailment in the more specific meaning* rather than *the evident entailment in the more general meaning.*

Entailment (*luzūm*) is of two categories:

(1) Evident (*bayyin*), which is is further divided into

a) by the more general meaning and

b) by the more specific meaning.

(2) Inevident (*ghayr bayyin*).

The *evident entailment by the more general meaning* is defined as that in which the implicate (*lāzim*) whose conception—when accompanied by the conception of the implicant (*malzūm*) and the nexus (*nisba*) between them—entails certainty in the entailment.

هو اللازم الذي يلزم من تصوره مع تصور الملزوم والنسبة بينهما الجزم باللزوم

The *evident entailment by the more specific meaning* is defined as that in which the conception of the implicant (*malzūm*) entails the conception of the implicate (*lāzim*) without need for mediation of anything else.

البين بالمعنى الأخص ما يلزم من تصور ملزومه تصوره، بلا حاجة إلى توسط شئ آخر

Compare this with: "Mental entailment is the implicate (*lāzim*) being in a state such that conception of the thing named (*al-musammā* qua entailing thing [*malzūm*]) entails conception of it (i.e., the implicate [*lāzim*])."

اللزوم الذهني كون اللازم بحيث يلزم تصور المسمى — أي الملزوم — تصوره — أي اللازم

These can be distilled in order to see the overlap more clearly: The description of *evident entailment by the most specific meaning* is: when the implicant (*malzūm*) is conceived, so too is the implicate (*lāzim*). Likewise, the description of *mental entailment* is: the implicate

ment by the more specific meaning [*al-luzūm al-bayyin bi-l-maʿnā al-akhaṣṣ*]; bringing the *more specific* as a condition necessitates the *more general* since the more specific cannot be realized without the more general. So, the more general meaning is also a condition. With this amount, the examples given are deemed valid.

As for [evident entailment by] the more general meaning being sufficient for the necessary implication's being accepted or its lack of sufficiency, then this is another matter of investigation in which there is disagreement between the Imam [al-Rāzī] and the majority [of scholars], as is known from the longer works.[56]

(*lāzim*) being such that when the implicant (*malzūm*) is conceived, so too is the implicate (*lāzim*).

Since al-Abharī stipulated "in the mind," it was clear he was thinking of "mental entailment" (*luzūm dhihnī*) which is defined according to *evident entailment by the most specific meaning*, evidenced by the shared phrases "when the implicant (*malzūm*) is conceived, so too is the implicate (*lāzim*)."

However, when it came time to give examples of necessary implication, al-Abharī gave an example based on *evident entailment by the most general meaning*, which is defined as: The implicate (*lāzim*) whose conception—when accompanied by the conception of the implicant (*malzūm*) and the nexus between them—entails certainty in the entailment. In this case, the implicate (*lāzim*), the implicant (*malzūm*), and the nexus must all be conceived, after which one is certain of the entailment between the implicate (*lāzim*) and the implicant (*malzūm*). Compare this to the *evident entailment by the most specific meaning* in which recognition of the entailment is immediate, for when the implicate (*lāzim*) is conceived, so too is the implicant (*malzūm*).

So, 'receptive to knowledge' and 'capable of writing' may in fact have an entailment relationship with 'human' but it requires the conception of entailed thing (*lāzim*), the implicant (*malzūm*), and the nexus (*nisba*) before the entailment can be affirmed.

A quicker way out of this debate is given by al-Fawzī, namely, that the examples of 'receptive to knowledge' and 'capable of writing' are given by way of hypothetical example, not actual examples of mental entailment by the more specific meaning. Al-Fawzī, *Khulāṣa*, 35. Muḥammad Riḍā l-Muẓaffar, *al-Manṭiq*, ed. Ghulām Riḍā l-Fayyāḍī (Qom: Muʾassasat al-Nashr al-Islāmī, 1437AH), 118. ʿAbdallāh al-Yazdī, *Sharḥ Tahdhīb al-manṭiq*, ed. ʿAbd al-Ḥamīd al-Turkmānī (Amman: Dār al-Nūr, 2018), 170.

56. While this debate is pinned for the longer works and does not enter into the discussion here, it is important to note that if al-Abharī had given examples based on the *evident entailment by the more general meaning*, then that would imply that either he agrees with al-Rāzī's opinion, or he disagrees but used it merely to demonstrate the principle of necessary implication through a hypothetical example. In this latter case, it is as though he said, "If we hypothesize that al-Rāzī was correct and produced an example of necessary implication based on an evident entailment from the more general meaning, then we would give as an example 'receptive to knowledge' and 'capable of writing'."

Categorization of Expressions

Simple and composite expressions

(Thereafter, the expression is either simple) and basic [*basīṭ*] or it is composite and composed because it is either the case that (a) signification of part of its meaning is not intended by part of it [the expression] or (b) it is intended.

Simple expressions

The former (a) is the simple [expression] (which is that wherein part of it [the expression] is not intended to signify part of its meaning). [This is] more general than[57] [the following five cases]:

1. That it does not have a part, such as the interrogative particle *alif* [*hamzat al-istifhām*], or[58]
2. It [the expression or symbol] has a part, but its meaning does not, such as 'the dot' [*al-nuqṭa*], or[59]
3. Its meaning also has parts but it [the parts of the expression] does not point to part of its meaning, (such as 'human') since the 'h', for example, does not signify 'animal' [or 'rational'], or[60]
4. [Part of the expression] also signifies part of its [unintended] meaning such as *ʿAbdallāh* as a proper name when there is nothing of worshipper

57. The definition given by al-Abharī is more general than the following five examples. Al-Abharī's definition is "that wherein part of the expression is not intended to signify part of its meaning." Restated: the simple expression is a coined signifying expression that cannot be divided into separate parts which signify part of the essential meaning that the symbol signifies. By stating it in this way, it can include a coined signifying expression which is itself indivisible, such as the interrogative particle *alif*, as well as a word which has multiple parts but whose parts do not signify part of the intended meaning. Examples 2–5 have multiple parts, but they are not intended to signify parts of their essential meanings.
58. Simple expression and simple meaning.
59. A multi-part expression, but simple meaning. One possible way to interpret this is that the term *nuqṭa* consists of *nūn-qāf-ṭā'-tā' marbūṭa* (ن – ق – ط – ة), thus making the expression a composite of letters, but it points to a simple and basic meaning, that of a dot, which is merely a point with breadth and width but not length. However, as a technical term in Euclidean geometry (*handasa*), it does have a definition, namely, 'end of a line'. While this definition is of composite meaning, al-Fanārī's usage of *nuqṭa* as an example of this second category of simple expressions is only in the sense of being a dot without composite meaning, not 'end of a line'. Al-Fawzī, *Khulāṣa*, 38.
60. Mutli-part expression, multi-part meaning, but the multi-part expression's parts do not signify any meaning whatsoever, let alone the multi-part meaning of the expression.

or divinity [being intended] as part of the named individual, or[61]

5. It also signifies part of its meaning; however, its signification is not intended, such as '*rational animal*' as a proper name since nothing of the parts 'rational' or 'animal'—the two parts of 'human'—are intended by this proper name. This is because the proper name is something by which nothing but the specific individual is intended without consideration of the essential meaning of the entity [*ḥaqīqat al-dhāt*]. Is it not seen that if the proper name were other than 'rational animal', the state of the proper name would not change?[62]

Therefore, the simple expression is of five types.[63]

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61. Multi-part expression, multi-part contextually unintended meaning, actual intended meaning. This is a multi-part expression, the parts of which each signify an actual meaning, however, none of those individual meanings are a part of the intended meaning. Just as the composite expression signifies the composite meaning, so too does part of the expression signify part of the meaning though unintended in this case because the composite expression was coined as a proper name to signify that individual, not the composite of meanings of the name. So, you could ask ʿAbdallāh what his name means, and he could tell you it means a composite of the word 'worshipper' and the word 'Allah' in the construct state (*iḍāfa*) meaning 'worshipper of Allah', but when put together it is understood to be a proper name sigifying ʿAbdallāh himself not the meanings that each word and their construct state signify.
62. Multi-part expression, multi-part meaning where each part does signify part of an essential meaning, which applies to the signified individual from another angle, but in this context, the multi-part expression is not intended to point to the genus and differentia of the thing signified; rather, it is again a proper name. So, the difference between this example and the previous example is that in the previous example the multi-part meanings did not apply to the thing signified, but in this example they do. However, in this context, those meanings are not intended, rather they are part of a proper name that points to the individual person. Were he to change his name, his proper name would still point to him as an individual, even if it no longer carried any meanings that point to his quiddity.
63. The five categories of simple coined signifying expressions are:
    (1) Simple expression, simple meaning. ("That which is indivisible" *lā yakūnu lahu juzʾ*)
    (2) Multi-part expression, simple meaning. ("That which is divisible (in its expression) but not in its meaning" *aw kāna lahu juzʾ lā li-maʿnāhu*)
    (3) Multi-part expression none of whose parts point to any of the multi-part meaning. ("[That which is divisible in its expression] and also is divisible in its meaning, yet its parts do not signify any part of its meaning" *aw kāna li-maʿnāhu ayḍan wa-lā yadullu ʿalā juzʾ al-maʿnā*)
    (4) Multi-part expression whose parts point to multiple particular meanings that are not parts of the significate's essential meaning. ("[That which is divisible in its expression and in meaning as well but [parts of whose expression] do not signify part of its meaning" *aw yadullu ʿalā juzʾ al-maʿnā ayḍan lākin lā yadullu ʿalā juzʾ maʿnāhu*)
    (5) Multi-part expression whose parts point to multiple particular meanings that are not intended by the expression but whose parts signify parts of the significate's

Composite expressions

(As for the composite expression, it is that which is not like that),[64] that is, [it is] that wherein the five stipulations are actualized[65] (such as 'thrower of stones'). Intended by 'thrower' is the signification of the entity of one from whom throwing emerges; [intended] by 'stones' is [the signification] of the specific bodies [*al-ajsām al-muʿayyana*].

Objection to the ordering of definitions for simple and composite expressions

If you were to say: "The essential meaning of 'composite' is existential [*wujūdiyyun*] so it is necessary to put its definition before the essential meaning of 'simple', so why does [the author] do the opposite?"[66]

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essential meaning from another angle. ("[That which is divisible in its expression and its meaning,] and also the parts [of the expression] signify parts of its meaning, however the signification of the parts of the essential meaning are not intended (*aw yadullu 'alā juz' maʿnāhu ayḍan lākin lā yakūnu dalālatuhu murādan*)."

64. "(...it is not like that), that is, it is not like the simple expression with regard to the five aforementioned stipulations being non-existent in it. With that, the commentator [al-Fanārī] explained it as follows: (that is, that wherein the five stipulations) previously mentioned (are actualized), that is, established and existent." Al-Fawzī, *Khulāṣa*, 39.

65. The realization of these stipulations entails the negation of the five examples given above. Any composite expression that signifies by concordance will actualize the following five stipulations:

    (1) The expression has parts.
    (2) Its parts have meanings.
    (3) Its meaning has parts.
    (4) Its parts signify parts of its meaning.
    (5) Its signification of those parts is intended.

    Al-Fawzī, *Khulāṣa*, 39.

66. The keys to understanding this objection are two: (a) existential and nonexistential meanings and (b) the etiquette of ordering the presentation of concepts. The objector assumes there is an etiquette to ordering topics, which is that something in which certain stipulations are met and affirmed should be introduced before something wherein those stipulations are not met and affirmed. The former is existential because those stipulated conditions exist in that example—the five stipulations exist in the composite expression—whereas the latter is the nonexistential since those stipulated conditions do not exist in that example (i.e., the simple). However, al-Fanārī remarks that this etiquette of ordering topics holds true when listing definitions; one begins with existential definitions before nonexistential definitions. However, this classification does not follow this rule of etiquette, as it is listing entities (*dhawāt*) not meanings (*mafhūmāt*) and therefore must start with the parts before listing the composite wholes. Since al-Abharī's primary goal is to classify expressions—which are entities (*dhawāt*)—and not listing definitions since

Response to the objection

I would respond: "Because the intention in [al-Abharī's] commencing with 'expression'[67] is [by way of] classification, and definition is included therein;[68] classification is with regard to the entity [*dhāt*] not the essential meaning [*mafhūm*], and the entity of the 'simple' precedes the entity of the 'composite'."[69]

Know that the simple and the composite and their forthcoming classifications are firstly and essentially classifications of essential meanings [*mafhūm*] and secondarily and accidentally [classifications] of the expression, thereby naming the signifier[70] with the name of the signified, except that the author allowed for metaphorical classification as it is closer to the comprehension of the beginner.[71]

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they will be contained in the classification, he therefore lists the simple expression first because they are the building blocks of composite expressions. See al-Fawzī, *Khulāṣa*, 40.

67. This refers to al-Abharī's statement: "the expression is either simple, which is that wherein part of it is not intended…."

68. The intention is to classify expressions as simple or composite, and in doing so the definitions of those two terms will be included in that classification scheme; definitions are plugged into the structure of the classification. Classifying the expressions is the primary goal; definitions are secondary, albeit necessary.

69. If the purpose of this section were primarily to *define* the essential meanings of these terms, then it would be true that he should start with 'composite' since its definition affirms the existence of something in that the definition is that one intends by part of the expression the signification of part of its meaning. On the other hand, the definition of 'simple' is that one *does not intend* that. The first is existential (*wujūdiyyan*), whereas the second is negational or nonexistential (*'adamiyyan*), because it is defined as being when one does not intend by part of the expression signification of part of its meaning. In ordering a list of definitions, one should begin with the existential and then list the nonexistential (according to the claimant). However, in ordering a classification scheme, one prioritizes listing the parts then that which is composed of those parts. The key to this response is that al-Abharī is producing a sequence (*tartīb*) of entities (*dhawāt*), not a classification of essential meanings (*mafhūmāt*). See Quṭb al-Dīn al-Rāzī's discussion of why al-Kātibī begins with the definition of composite before simple in his *al-Shamsiyya*. Al-Rāzī, *Taḥrīr al-qawā'id*, 98.

70. The signifier (*al-dāll*) is the term 'expression' while the signified (*al-madlūl*) is the essential meaning (*al-mafhūm*). Qūl Aḥmad mentions that critiques of this view are found in the longer commentaries. Qūl Aḥmad, *Fawā'id*, 42.

71. Regarding the simple and composite expressions, their being simple or composite is really the state of the essential meaning (*mafhūm*), not the expression (*lafẓ*) itself. However, the student first studies syntax and morphology, which investigate the states of expressions, and then moves on to an introductory text on logic, having not yet obtained knowledge of the rational sciences. In order to ease this transition from the study of expressions to the study of concepts, al-Abharī gives the metaphorical classification of expressions, which is really a classification of essential meanings (concepts). Al-Fawzī, *Khulāṣa*, 41. Assuming that students in a madrasa who are studying this text could be anywhere from 15 to 20 years of age, if their educational experience had thus far been limited to Quran

Universals and Particulars

Definition of the universal

(Thereafter, the simple) expression[72] (is either universal—which is that thing the mere conception of whose essential meaning [*mafhūm*][73] does not prevent the occurrence of shared application [*al-sharika*] such as 'human'), that is, its [the simple expression's] meaning—inasmuch as it is conceived in the mind—does not prevent a multitude [of particulars] from sharing in it [that meaning], even if it is prevented:

- with respect to a rational proof [*burhān*] that demonstrates its oneness such as the Necessarily Existent (Most High)[74]
- or with respect to viewing it from the perspective of its external existence. This [second case of] preventing of application to others has two angles:

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memorization, basic *fiqh, aqīda, taṣawwuf*, and a heavy dose of Arabic syntax and morphology, it is unlikely that when first approaching a text like al-Abharī's, these students would have much experience studying secondary intelligibles (*al-maʿqūlāt al-thāniya*), which are the subject matter of logic. So, al-Abharī gives a classification of sensibilia, expressions which are known to the senses as they are spoken, written, read, and heard, rather than intelligibles which are the domain of the mind. With this example, it is important to keep in mind that al-Fanārī is writing a high-level commentary on an introductory text; as part of the madrasa curriculum in the centuries after his death, al-Fanārī's commentary was preferably not read until one had studied al-Abharī's *Īsāghūjī* with the more basic commentaries such as that of al-Kātī and al-Anṣārī.

72. Al-Fanārī's use of the term "the expression" reminds the reader that al-Abharī is classifying and defining expressions, and in this instance al-Fanārī reminds us that the author is explaining that the simple expression that signifies by coinage is either a universal or particular. Al-Fawzī, *Khulāṣa*, 41.

73. The essential meaning (*al-mafhūm*) is the meaning (*al-mawḍūʿ lahu*) for which the coined expression (*al-mawḍūʿ*) was coined. It is often used synonymously with 'quiddity' (*māhiyya*). The essential meaning and quiddity can be subdivided into three types:
    (1) Unconditioned quiddity (*lā bi-sharṭ shay'*). This is absolute quiddity (*māhiyya muṭlaqa*) unconditioned by existence or non-existence. It is quiddity without considering whether or not it has accidental qualities.
    (2) Quiddity conditioned by having some accidental quality (*bi-sharṭ shay'*)
    (3) Quiddity conditioned by having no accidental qualities (*bi-sharṭ lā shay'*)
    The first is more general than the others and can be applied to them as well.

74. Mere conception of 'necessarily existent' does not prevent the application to a multitude of hypothetical particulars. However, when presented with a rational proof that the Necessarily Existent is only one, then the essential meaning of 'Necessarily Existent' is prevented from applying to a multitude; rather it is limited to only one.

either such that it has no external existence, such that it be said that shared application is possible,[75] such as the 'nonexistent thing' [*al-lāshay'*] and 'another deity besides God' [*sharīk al-Bārī*]

or such that it has an external existence though without any other co-sharer in existence, such as 'the sun'.[76]

The benefit of the qualification by 'mere conception' in the definition

In his saying "the mere conception of whose [the expression's] essential meaning," he is guarding against excluding the abovementioned examples of universals [Necessarily Existent, a nonexistent thing, other deity, and sun] from the definition of the universal, such that it would not be fully inclusive [*jāmiʿan*],[77] and [such that] they [these examples] would be included in the definition of the particular, which would then not be fully exclusive [*māniʿan*]. Were it deemed sufficient to use just the term "mere" or "conception," then this useful benefit[78] [*fā'ida*] would not have been obtained, as is not hidden from any non-partisan and just reader.

The qualification by 'essential meaning' in the definition

As for mentioning "the essential meaning" [*al-mafhūm*], then this is based on the fact that the object of classification [*mawrid al-qisma*] is the expression [*al-lafẓ*], so it does not entail that there is a meaning for a meaning.[79]

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75. From this we can understand that al-Fanārī is drawing our attention to the fact that the existence of a non-existent thing or a deity besides God is rationally impossible yet we are able to conceive of these concepts in our minds, such that there could be a universal term (*lafẓ kullī*) 'nonexistent thing' or 'other god' which could be applied to every imagined nonexistent and impossible thing (as opposed to the nonexistent yet possible thing such as unicorns, which is a different category). So, Zeus, Ogden, al-Lāt, and every other deity of other belief systems would be particulars under this universal term, yet their extramental existence as deities is impossible.
76. That is, from the perspective of one on the planet earth wherein the term 'sun' is defined as 'the daytime celestial body', there is only one sun, even if it is rationally conceivable that there could be more.
77. Al-Fanārī is referring here to the rule that a definition must be fully inclusive of all to which it applies and fully exclusive of all to which it does not apply.
78. The useful benefit or utility is the inclusion of the aforementioned hypothetical examples (necessarily existent, non-existent thing, other deities, and the sun) under the definition of universal and their exclusion from entering into the definition of particular.
79. "This indicates an objection and response. As for the objection, it is as follows: The author's (al-Abharī) mentioning 'whose essential meaning' in the definition of universal and particular is invalid because the pronoun in 'whose essential meaning' returns to that which is itself a meaning, so that entails that there is a meaning for a meaning. As for the response,

Definition of the particular

([The simple expression is either universal…] or it is particular, which is that expression wherein mere conception of its meaning prevents that), i.e., prevents the occurrence of shared application among multiple things, (such as Zayd), for its ['Zayd'] meaning is the essence [*dhāt*][80] with its specification [of characteristics]. The combination[81] [of essence and specific characteristics] inasmuch as it is conceived [in the mind] prevents shared application—just

it is as follows: we do not submit to the claim that the pronoun returns to that which is itself a meaning; rather it returns to that which is an utterance (*lafẓ*), because the author considered the classification to be metaphorical. So, he made the utterance the object of classification, as he said first [at the beginning of the section], 'the utterance is either simple or composite,' so that entails that the pronoun returns to 'utterance.' So, there is no meaning for the meaning, rather there is a meaning for the expression…" Al-Fawzī, *Khulāṣa*, 43. The upshot of the objection is rooted in the fact that universals are actually secondary intelligibles as mentioned previously, and, therefore, meanings (*maʿānī*). To say that a meaning (*maʿnā*) has a meaning (*mafhūm*) is redundant and absurd. However, al-Fanārī reminds the objector that al-Abharī indicated he is classifying utterances/expressions (*alfāẓ*) since the beginner in logic has likely only studied utterances/expressions in his previous studies of morphology and syntax and has not yet embarked on the study of rational second-order objects. Therefore, the classification of utterances is actually metaphorical, since in reality, it is intelligibles (*maʿqūlāt*) that are being classified and studied in logic. See Maḥmūd Nashāba, *Ḥāshiyat Nathr al-darārī* (Cairo: Dār al-Baṣā'ir, 2016), 70.

80. The term *dhāt* has multiple meanings depending on the perspective taken. For example, it can be contrasted with attribute (*dhāt muqābaltan bi-l-waṣf*) wherein it is an entity attributed with various qualities. Or it can be contrasted with individuating characteristics (*mushakhkhiṣāt*) of an individual being. In the latter sense, *dhāt* referrs to its quiddity (*māhiyya*), and this is the sense that is intended here. So, the essential meaning (*mafhūm*) of the proper name 'Zayd' as it applies to one specific individual is 'rational animal' (i.e., the essence or quiddity) plus the specific characteristics that make Zayd who he is (i.e., that he was born at a particular time and place, has specific DNA, has specific eye, skin, and hair colors, etc.). For a discussion of different usages of the term *dhāt*, see al-Fawzī, *Khulāṣa*, 44.

81. The collective of essence and specific characteristics when formed as a conception in the mind prevents the application of this conception to other entities.

like the conception of the thisness[82] [*al-hādhiyya*[83] or *al-hudhayya*] in view of its application to [some particular individual in] extramental existence[84] prevents shared application—in contrast with the essential meaning of essence [*dhāt* qua *māhiyya*],[85] for its essential meaning[86] is the very essence [*ḥaqīqa*] of the species [*naw'*], as you already know.[87]

Objection to the definition of the particular

If you were to say that…

- the particular is that thing the mere conception of whose essential meaning does not prevent the occurrence of shared application such as 'Zayd' and "Amr' and other than them[88] and

82. The 'thisness' (or 'haecceity') referred to here is when an abstract universal such as 'book' becomes a specific particular through the use of a demonstrative pronoun. For example, 'book' is the abstract universal term. However, when I say, 'this book', it becomes a specific particular. The analogy here is that were one to say 'human' or 'rational animal', this would only elicit a universal meaning. However, if one says 'Zayd' sigifying a specific person named Zayd with this name, then the proper name 'Zayd' performs the same act as 'this', namely, taking the abstract universal 'rational animal' and combining it with the specific characteristics that make up the specific individual named Zayd. Demonstrative pronouns and proper names perform the act of combining the quiddity or essence with the specific characteristics that make up that particular, and thereby through that combination signify that particular.
83. K: vowelized as *hādhiyya*; T vowelized as *hudhayya*.
84. The combination of essence and specific characteristics prevents application of the term to more than one thing, just as the demonstrative pronoun 'this' takes a universal term like 'human' and converts it to a particular term 'this human' referring to an actual being in the extramental world.
85. In contrast with the essential meaning of 'essence' without any additional characteristics. Zayd's essence (*dhāt*) without his particular characteristics is 'rational animal', which is the same as the species itself to which he belongs. So, mere conception of the *dhāt* as quiddity or species does not prevent application to a multitude of particulars, but mere conception of Zayd—whose essential meaning is 'rational animal' plus his particular characteristics—is prevented from application. Al-Fawzī, *Khulāṣa*, 44.
86. K: *bi-khilāf mafhūm al-dhāt fa-inna mafhūmahu*…; H: *bi-khilāf mafhūm al-dhāt fa-innahu*…
87. Conception of the essence (*dhat*=quiddity [*māhiyya*]) without individuating characteristics (*mushakhkhiṣāt*) is not prevented from universal application, for it is the actual essence of the species, that is, its quiddity. The essential meaning of the essence itself is its quiddity or species. The species consists of the genus and the differentia, as is discussed later. So, when thinking about Zayd as having an essence to which specific characteristics are added, his essence is 'rational animal'. The essential meaning of Zayd is 'rational animal plus his specific characteristics', and the essential meaning of Zayd's essence—to which these specific characteristics are added when conceiving of his quiddity—is 'rational animal'.
88. This is the minor premise of the objector's syllogism. It important to take note of the word "not" in "…mere conception of its meaning does *not* prevent…." By adding this one word, we

- all that are like that are universal,[89]
- therefore, the particular is universal,[90]

…then this is an absurdity.[91]

Response to the objection

I would say:

The intended meaning of 'the particular', if it is that[92] to which the expression 'the particular' applies [*mā ṣadaqa ʿalayhi*] such as Zayd, then we do not accept the minor premise.[93] And if it is the expression 'the particular', then we

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are now looking at the definition of universal. The definition of particular is "that whose mere conception of its meaning does prevent the occurrence…" It is as though the objector is saying, "You say that 'a particular is a word whose mere conception of its meaning does prevent the occurrence…', but I say the particular is a word whose mere conception of its meaning does *not* prevent the occurrence…." As for why the objector says this, al-Fanārī will explain shortly.

89. This is the major premise of the objector's syllogism.
90. This is the conclusion that follows from the minor and major premises.
91. That is, it differs from the way things actually are in reality (*nafs al-amr*). Al-Fawzī, *Khulāṣa*, 44.
92. That to which the expression 'the particular' applies is the referent or instance of the particular itself (i.e., Zayd).
93. If the objector intended by "the particular" in his syllogistic argument the instances to which the term 'the particular' applies (i.e., Zayd), rather than the universal meaning of the expression itself, then the minor premise of objector's syllogism does not hold true, namely, "the particular is that whose mere conception of its meaning does not prevent the occurrence of shared application such as 'Zayd' and "Amr' and other than them," since mere conception of the meaning of each of these referents does in fact prevent them applying to a multitude.

    If, however, the objector intended by the term 'the particular' the universal 'the particular', then it would be true that the universal term 'the particular' is a universal, so there is no absurdity upon which to base an objection. In other words, in this case, the minor premise when more clearly stated means: "'the particular' is a term whose mere conception of its meaning—which is 'that whose mere conception of its meaning *does* prevent the occurrence of shared application'—does not prevent the occurrence of sharing among its referents, such as Zayd…." In this case, there is no absurdity.

    The claim is that 'particular' is similar to the term 'human' in that it has a multitude of referents, such as Zayd, 'Amr, Bashīr, Aḥmad, etc., and therefore both 'human' and 'particular' are universals since they apply to a multitude. But, if by 'particular' the objector intended those referents to which it applies, such as Zayd (particular [a]), 'Amr (particular [b]), Bashīr (particular [c]), etc., then the claim is not accepted, because the mere conception of the essential meaning of the term 'Zayd'—namely its quiddity plus particular characteristics—can only signify one particular person named Zayd and therefore 'Zayd' *does* prevent the application of its meaning to a multitude and is therefore a particular, not a universal. The key to this is that if the objector meant that 'particular' is universal

do not accept the absurdity in the conclusion.[94]

Simple Universal Expressions Are Either Essential or Accidental

Definition of the essential

(And) the simple (universal) expression (is either an essential [*dhātī*], which is that which enters into the quiddity of its particulars [*juz'iyyātiha*] such as 'animal' with respect to 'human' or 'horse'). That is, if what is intended by these two terms is their species-quiddity,[95] then they are relative particulars [*juz'iyyān iḍāfiyyān*], but if what is intended by these two terms is each individual instance [*afrādihimā*]—by which I mean the individuated allotments [*al-ḥiṣaṣ*][96]—in that case they would be real particulars [*juz'iyyān ḥaqīqiyyān*].[97]

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because that to which it applies—namely, 'Zayd' and "Amr' etc.—are not terms whose mere conception of their essential meanings (quiddity plus particular characteristics) prevent their application to a multitude, then the objector would be wrong because they do in fact do so. Al-Fawzī, *Khulāṣa*, 45. Qūl Aḥmad, *Fawā'id*, 45.

94. If what were intended by 'particular' was the quiddity or meaning of 'particular'—as opposed to its individual referents such as Zayd or 'Amr—then the conclusion would not be problematic, because 'particular' is a universal term that applies to all terms the mere conception of whose meanings prevent them from being applicable to more than one referent (or collective of referents in the case of a collective like 'the students in this class').

95. If what is intended is 'rational animal' and 'neighing animal' without stipulating any specific characteristics that would limit the signification to a particular human or horse, then 'human' and 'horse' are instances of relative particulars. That is to say, they are particulars with regard to the genus 'animal', but they are species with regard to the particular instances of humans and horses, respectively.
"With that meaning, 'human' is a particular in relation to 'animal', 'animal' is a particular in relation to 'living body', which is a particular in relation to 'body', which is a particular in relation to 'substance'." Al-Fawzī, *Khulāṣa*, 45.

96. *Al-ḥiṣaṣ* is a technical term referring to the combination of the universal essence (e.g., rational animal) and the individuating characteristics found in each individual. Al-Fawzī, *Khulāṣa*, 45.

97. The essential is the universal that enters into the quiddity of its particulars, such as 'animal' with reference to 'human' or 'horse'. A human is a rational animal and thus we see 'animal' is a universal that enters into the concept 'human'. If al-Abharī intended by these terms *al-māhiyyāt al-naw'iyya* (species-quiddities)—that is, 'human' signifies 'rational animal' and 'horse' signifies 'neighing animal' and thus we see the species as consisting of genus (common to both) and differentia (specific to one and not the other)—then these two terms ('human' and 'horse') would be considered relative particulars. A relative particular is in itself a universal, but in relation to something more general than it, it is then counted as a particular. However, if al-Abharī intended by 'human' and 'horse' the specific individuals of these species—i.e., each individual human or horse—which are the combination of

Is species an essential universal?

Know that 'essential' [*al-dhātī*] is applied homonymously[98] to two meanings:

(a) that which enters into something (is internal to it) and

(b) that which is not external to it.

The species [*naw'*] according to the first meaning would not be an essential because it is the complete quiddity of the particulars.[99] According to the second meaning, it would be an essential. The outward purport of the author's definitions indicates the first meaning; however, we might interpret it according to the second meaning metaphorically [*bi-l-ta'wīl*] such that what is intended by 'internal' is 'non-external'.

If it [the definition] is interpreted according to the outward purport [literal meaning, e.g., enters into], then the meaning of 'essential', when he sets out with the classification, is the second meaning.

Objection

With that, his returning to it[100] is [an example of returning to the subject by] stating it explicitly [*muẓharan*] for to do so with a personal pronoun [*muḍmaran*] would not suffice,[101] even if it would be possible to do so using

universal ('animal' and either 'rational' or 'neighing') and individuating characteristics (*mushakhkhiṣāt*), then these two terms would be real particulars, meaning that whose mere conception prevents application to a multitude.

98. Rather than a homonym, this emerges from a difference in opinion over the definition of the technical term 'essential'. A homonym would be multiple coined lexical expressions with the same spelling and pronunciation but with differing coined lexical meanings, whereas these are two differing definitions for the same technical term. I am indebted to Shaykh Ṣāliḥ al-Ghursī's recorded lectures on al-Fanārī's text for this subtle point.

99. If an essential is that which enters into the essence of its particulars, it would be impossibly redundant to consider a species as an essential, as how can 'rational animal' for example enter into 'rational animal'? If the species 'human' is defined as 'rational animal' and the essence of each individual human being is 'rational animal', nothing meaningful comes from saying 'rational animal' enters into or applies to 'rational animal'.

100. That is, his returning to the term 'essential' by stating it explicitly yet using it according to its second meaning ('that which is not external to it') when he begins his classification a few lines later is an example of returning to the subject through the explicit restatement of the term rather than using a pronoun.

101. It would not suffice to first use the term 'essential' in its first meaning and then refer back to it later with a pronoun in its second meaning. This is not because it is impossible to do so, as the convention of *istikhdām* allows for this, but rather, as he clarifies below, the predominant norm is to use pronouns to refer back to their original meanings. The lack of sufficiency is due to its contradicting predominant norms, not due to a lack of lexical precedent and convention.

the convention of *istikhdām*;[102] however, the predominant norm in using personal pronouns [*al-muḍmar*] is intending the first meaning.[103]

Response to the objection

As for the discussion regarding "the reiterated reference to a thing as a definite [noun] [*maʿrifatan*]…,"[104] it is the default principle [*aṣl*], though it is often disregarded with the use of contextual evidence [*qarāʾin*].[105]

If, however, it is interpreted according to the aforementioned interpretation [*taʾwīl*], then the "essential" in the beginning of the classification scheme [below] would follow the default principle regarding "the reiterated reference to a thing as a definite [noun]."[106]

Definition of the accidental

(As for the accidental, it is that which is opposed to it [i.e., the essential]), that is, it does not enter into the quiddity of its particulars in either sense—i.e., in that it is not a part of it or it is external[107] to it (such as 'laughing' with

102. *Istikhdām* is when there is an expression with multiple meanings—whether both are literal, both are metaphorical, or one is literal and the other is metaphorical—and the first usage is one meaning and the later pronoun referring back to it is another meaning. Al-Fawzī, *Khulāṣa*, 46.
103. The predominant norm is to use a pronoun to refer back to the same meaning of the explicitly mentioned term, not to use a pronoun to refer back to a second meaning as is being suggested here.
104. This is a response to an implicit objection: the objector is citing the general rule that when a noun is expressed first as grammatically indefinite (*nakira*) and then a second time as definite (*maʿrifa*), the second noun is being used to refer to the very same thing that the first noun had referred to. Al-Fawzī, *Khulāṣa*, 47.
105. If one is defending the use of two meanings for 'essential', the first for when it is stated explicitly and the second for when it is referred back to via a pronoun, then they have to address this fundamental principle that when a pronoun is used to refer back to an explicitly referenced subject, the pronoun carries the same meaning as the explicitly stated subject. The response is that while this is in fact a fundamental grammatical principle, one may depart from this principle through contextual evidence. The contextual evidence here is that 'species' is counted among the divisions of the essential universal, thereby demonstrating that it is in fact an essential universal on the second definition ('that which is not external to it').
106. If the term essential is interpreted metaphorically as 'that which is not external to it' for both the section wherein the term is defined and also in the section later in the text wherein it is divided into genus, species, and differentia, then its explicit restatement in the definite sense in the section on its classification would conform to the fundamental principle that the returning reference to a thing is in the definite sense.
107. Some editions incorrectly include the negative particle "does not enter into…."

regard to 'human'), for indeed, it is external [to 'human'] because the principle is that any species, if it has an ordered sequence [*mutarattiba*] of specific characteristics—such as 'rational', 'perceiving subtle and strange things' [*al-mutaʿajjib*], and 'laughing', then the first and most prior one is considered essential, because the essential is most prior.

Objection to the usage of the term "essential"

If you ask: The essence [*ḥaqīqa*][108] of a species is the essence itself [*ʿayn al-dhāt*],[109] so how can it be essential? I say: The popular response is that the application of the term "essential" to it [species] is in its technical meaning not its lexical meaning,[110] so this does not require that the ascription [*al-mansūb*] and that to which it is ascribed [*al-mansūb ilayhi*] are different [*al-mughāyara*].

Response to the objection

I say [i.e., in opposition to the popular opinion I just cited]: 'Essence' [*al-dhāt*], just as it designates the essence [*ḥaqīqa*] itself,[111] also designates the referents [*mā ṣadaqa ʿalayhi*] of the essence [*ḥaqīqa*],[112] so perhaps what is intended with the word "essence" [*al-dhāt*] here is the latter meaning [the referents]. It is possible to ascribe the essence [*ḥaqīqa*] itself to that which the essence designates [i.e., the individual referents] just as it is also possible to ascribe its two parts [*jins* and *faṣl*][113] to them [the referents].

108. Qarah Khalīl uses *ḥaqīqa* and *māhiyya* interchangeably. Qarah Khalīl, *Ḥāshiyat Qūl Aḥmad*, 211.
109. The quiddity of human is 'rational animal' and the essence—*dhāt* in the sense of the essence which is qualified with particular characteristics—is 'rational animal'. That is, the essence (*dhāt*) of Zayd is 'rational animal', which is qualified with all the particular characteristics that differentiate Zayd from all other rational animals.
110. The technical meaning of *dhātī* is 'that which is not external to the quiddity of its particulars', and the lexical meaning of *dhātī* is 'that which is ascribed to the *dhāt*'. The *miṣrī*, lexically, is the one ascribed to the *miṣr*.
111. For example, 'rational animal' without any particular characteristics of individuals.
112. That is, the term 'essence' applies to the essence of an individual without any particular characteristics, yet it also applies to the referent of the essence (*ḥaqīqa*) which is 'rational animal plus its particular characteristics', namely Zayd. In other words, just as the term 'essence' is applied to the intension—which is the universal meaning of 'rational animal'—it is also applied to the extension, which is the individual referents characterized by 'rational animal' along with their individual particular characteristics.
113. H: "…its two parts"; whereas K: "(its part), that is, part of the essence [*ḥaqīqa*] and quiddity—which is only 'animal'—or only 'rational'…."

Classification of Essential Universals

(The essential), the intended meaning of this term has already been mentioned. The essential is of three categories because it is either what is said in answer to "What is it?" or in answer to "Which thing is it in its essence?"; this is the differentia [*faṣl*]. That which is said in answer to "What is it?" is either on account of only what is shared—and this is the genus [*jins*]—or on account of both what is shared and what is specific, and this is the species [*naw'*].

Definition of the genus

With that, he said (it is either what is said in response to "What is it?" in accordance with) only[114] what is shared [*al-sharika*], such as 'animal' with regard to 'human' and 'horse'). 'Animal' is an answer to our saying "What are a human and a horse?" and not to our saying "What is a human?" because the one asking "What is it?" is asking about the complete essence [*tamām al-ḥaqīqa*], and 'animal' is not the complete and specific [*mukhtaṣṣa bihi*] essence of 'human';[115] rather, it ['animal'] is the complete essence shared with 'horse'. With that, our saying "only" was necessary. And if not [had we not said "only"], then what he said would not have been correct. (And it), that is, that which is said [*al-maqūl*][116] (is the genus) because the species [*al-naw'*] too is said with regard to what is shared in general [*fī al-jumla*]. So, that was the intended meaning, even if he did not mention it.[117]

(And it [the genus] is described[118] as a universal said [*maqūl*] of a multitude of things that have different essences [*ḥaqā'iq*] in answer to the question "What is it?")

114. Some editions indicate that al-Fanārī appears to have been working from a manuscript that did not include the word "purely" (*al-maḥḍa*) whereas other manuscripts include this word as part of the *Īsāghūjī*, which seems to do away with the need for al-Fanārī to say "only" (*faqaṭ*). T and H do not have the word "purely" (*al-maḥḍa*) included in al-Abharī's text, whereas K includes it, followed by al-Fanārī's interjection of "only" (*faqaṭ*).
115. 'Animal' is not the complete and specific essence of 'human'; rather, the complete and specific essence of 'human' would be 'rational animal'. Al-Fawzī, *Khulāṣa*, 50.
116. "…it is either what is said [*maqūl*] in response…"
117. That is, even if al-Abharī did not explicitly say "only," it is clear from that context that that is what he meant.
118. Al-Abharī says that it is described (*yursamu*) to signal that this is a descriptive definition (*ta'rīf rasmī*) and not a definition (*ḥadd*) in the proper sense. Al-Fawzī, *Khulāṣa*, 51.

Analysis of the definition of the genus

So, 'universal' is the genus of 'genus' and encompasses the rest of the universals. And "said" [*maqūl*] is mentioned so that "of a multitude of things" can be connected to it. So, there is nothing of these two [i.e., "said" and "of a multitude of things"] which is redundant or extraneous [*mustadrak*]. Moreover, "a multitude of things" is mentioned so that it can be described by his saying "having different essences."

Exclusions from the definition of the genus

His saying "having different essences" excludes the species, its [the species'] special accident,[119] and [its] close differentia.[120] Specifying the exclusion to the species is a case of arbitrariness [*taḥakkum*].[121] His saying "in answer to 'What is it?'" excludes [from the definition] the distant differentia [*al-faṣl al-baʿīd*],[122] the general accident[123] [*al-ʿaraḍ al-ʿāmm*], and the special accident of the genus [*khāṣṣat al-jins*].[124]

Moreover, this and its analogues[125] are a description, because 'being said of something' [*al-maqūliyya*] is an accidental property of universals, and defining with an accidental property is a description. That is because the genus in itself

119. H: "the special accident" (*al-khāṣṣa*); K: "(its special accident [*khāṣṣatuhu*]), that is, the special accident of the species [*khāṣṣat al-nawʿ*]."

120. "It too is said of a multitude agreeing in quidditive essences." Al-Fawzī, *Khulāṣa*, 52.

121. *Taḥakkum* is described as positing an effect without a cause, preponderance without a preponderator (*tarjīḥ bi-lā murajjiḥ*), a judgment without a proof (Al-Fawzī, *Khulāṣa*, 51), or specification without a specifier (Qarah Khalīl, *Ḥāshiyat Qūl Aḥmad*, 218). This is a technical term in the science of disputation (*munāẓara*). This critique is leveled against Quṭb al-Dīn al-Rāzī and Ḥusām al-Dīn al-Kātī. The critique is that claiming that al-Abharī excluded species from the definition by saying "having different essences" fails to address the prior stipulation of "said of a multitude of things," which excludes the special accident and the differentia. Perhaps what is meant is that it would have been better for him to first mention these exclusions before moving on to the second stipulation "differing in essence," which excludes species from the definition. Al-Jurjānī, however, disagrees and defends al-Abharī's specification of the exclusion of species. Muḥammad al-Fanārī, *al-Fawāʾid al-fanāriyya*, ed. Muḥammad ʿAbd al-ʿAzīz (Beirut: Dār al-Kutub al-ʿIlmiyya, 2014), 47n.1.

122. "Because the first (*al-faṣl al-baʿīd*), it is not fit that it be an answer to 'What is it?' which is a question about the complete essence (*ḥaqīqa*)." Al-Fawzī, *Khulāṣa*, 52.

123. General accidents include 'walking'. Al-Fawzī explains, "…and the second (*al-ʿaraḍ al-ʿāmm*) is not fit that it be an answer at all…." Al-Fawzī, *Khulāṣa*, 52.

124. Al-Fawzī explains, "…It is not fit that it be an answer to 'What is it?'; rather [it answers] 'Which thing is it in its accidental property?'" Al-Fawzī, *Khulāṣa*, 52.

125. The definition of genus, along with those of its analogues—species, differentia, special accident, and general accident—are all descriptions, because being able to say something of another is an accidental property. Al-Fawzī, *Khulāṣa*, 52.

is an essential universal for[126] things that have different essences, regardless of whether it is said of them or not said.

The status of 'being said of something' in the definition of the genus

As for 'being said of something'[127] [*al-maqūliyya*] and its [the genus'] being suitable for it ['being said of something'], it is from that which accidentally qualifies it [*yaʿriḍu lahu*] after its establishment,[128] as [it was said] in *Sharḥ al-Ishārāt*.[129] Thus, do not pay attention to that which was said[130] that they are definitions (*ḥudūd*) due to their being subjective matters (*umūr iʿtibāriyya*).

Objection to the definition of the genus

If you say:

'Genus of genus'[131] is more specific than unconditioned genus, and it is not permissible to define the general by one of its specific members [*khawāṣṣ*].[132]

Then I say:

126. H: *li-mukhtalifāt al-ḥaqīqa*; T, K: *al-mukhtalifāt al-ḥaqīqa*.
127. There is a distinction between "being said of something else" and "being sayable of something else," the first pertaining to actuality and the latter to potentiality. Al-Fawzī mentions: "…the infinitive *yā'* (*yā' al-maṣdarī*), that is, the genus being said in actuality." Al-Fawzī, *Khulāṣa*, 52.
128. That is, "after its obtainment and existence." Al-Fawzī, *Khulāṣa*, 52.
129. Al-Fanārī has summarized here what Quṭb al-Dīn al-Rāzī said in his commentary on Ibn Sīnā's *al-Ishārāt*.
130. As was said by al-Kātibī and Ibn Sīnā. Qūl Aḥmad, *Ḥāshiyat Qūl Aḥmad*, 219.
131. Qūl Aḥmad clarifies the opposing questioner's opposition: "That is, that the universal is more specific than the genus because it [the universal] is the genus of genus, and the genus of genus is more specific than the unconditioned genus, since it [the genus of genus] is an instance among the instances of unconditioned genus." Qūl Aḥmad, *Ḥāshiyat Qūl Aḥmad*, 220. That is, if one divides 'genus' into various categories of genera—plant, animal, mineral, universal, government, computer, etc.—and then lists the subcategories under each of the genera, one will find subsumed under 'universal' the following subcategories: genus, species, differentia, general accident, and special accident. From that perspective, 'universal' is the genus of genus, as well as the genus of species, differentia, general accident, and special accident. So, the objector imagines that al-Abharī's definition uses 'universal' when it is subsumed under absolute 'genus', and as such is a more specific instance of the definiendum (i.e., 'genus').
132. Defining a more general term by its specific members (*khawāṣṣ* or *afrād*) is invalid, such as defining 'animal' as 'human'. See Qūl Aḥmad, *Ḥāshiyat Qūl Aḥmad*, 220.

If what was intended by this was impermissibility when the two perspectives—definitional[133] and specified[134]—are united,[135] then it is granted,[136] however, it does not yield anything useful.[137]

***Response #1*: Definitional usage of universal, more general than genus**

If what was intended was absolute [impermissibility],[138] then [the claim] is not conceded. That is because 'universal' in its essential meaning [*mafhūm*] is a definiens and more general than unconditioned genus,

***Response #2:* Accidental specified usage of universal, more specific than unconditioned genus**

and ['universal'] from an accidental perspective [*iʿtibārin ʿāriḍin*]—namely, its being the genus for 'genus'—is more specific than it [unconditioned genus] and not a definiens. So, the two matters[139] are permissible in one thing[140] with differing perspectives.[141]

133. "Definitional" (*muʿarrifiyya*) refers to the meaning of 'universal' as provided in al-Abharī's definition: "The universal is that thing the mere conception of whose essential meaning does not prevent it from application to a multitude."
134. "Specified" (*khuṣūṣiyya*) refers to the meaning of 'universal' when viewed from the perspective of it being the 'genus of genus', an instance of unconditioned genus.
135. That is, when defining 'genus' as 'a *universal* said of…,' the term 'universal' carries both the definitional meaning and the specific meaning (see previous two footnotes).
136. It is granted that when the definition of genus contains the term 'universal', and 'universal' can be interpreted as both its essential definitional meaning as well as the specific accidental meaning of 'genus of "genus"' simultaneously, then given the presence of the specific meaning contained within 'universal', it holds true that it would violate the principle that a more general term cannot be defined by one of its specific members.
137. It does not yield anything useful because it is possible that the two perspectives—definitional and specific—are not unified in use of the term 'universal' in the definition of genus; rather the two perspectives might be separate.
138. Absolute and unconditioned impermissibility, meaning whether both perspectives—definitional and specific—are united or separate, it would still be impermissible to use 'universal' in the definition of genus. This claim of absolute impermissibility is rejected, because in its definitional sense, 'universal' is more general than 'genus' and can therefore be used in the definition of 'genus'.
139. "That is, the universal's (a) being more general and a definiens and (b) it being more specific [is permissible in one thing by means of the two differing perspectives], that is, the perspective of the essential meaning (*mafhūm*) and the perspective of its being a genus here." Qūl Aḥmad, *Ḥāshiyat Qūl Aḥmad*, 223.
140. "in one thing" is absent from H and K, but present in T.
141. Perspective 1: from the perspective of the essential meaning of universal. Perspective 2: from the accidental perspective of universal being a genus of genus.

Definition of the species

(Or it [the essential universal] is said in answer to "What is it?" in accordance[142] with what is shared [*al-sharika*][143] together with what is specific [*khuṣūṣiyya*][144] —such as 'human'—with regard to Zayd and 'Amr). That is, it is an answer to the question about a specific individual and about two individuals; so, 'human' is an answer to our saying "What is Zayd?" and to our saying "What are Zayd and 'Amr?" because it ['human'] is the complete essence [*tamām al-ḥaqīqa*] of every one of its individuals, which differ in their individuating accidents [*al-ʿawāriḍ al-mushakhkhiṣa*].

(It is), that is, that saying [*maqūl*] is (the species [*al-nawʿ*]. It is described as a universal said of a multitude that differs in number[145] but not in essence [*ḥaqīqa*] in answer to the question "What is it?")

Exclusions from the definition of the species

And the mention of "universal" and "said of many" is not superfluous as was previously said.[146] His saying "differ in number but not in essence" excludes the genus[147] and its special accident [*khāṣṣatuhu*][148] along with the general accident[149] and the distant differentia.[150] To single out the genus as being excluded by [the phrase "differ in number…"] is arbitrary [*taḥakkum*].[151]

142. "*Bi-ḥasab*" here means "*bi-l-muwāfaqa*," translated here as "in accordance with." Al-Fawzī says: "So, the meaning is: or what is said in answer to 'What is it?' which is in accordance with what is shared by each individual to which the saying applies in that question… and in accordance with what is specific to each individual to which what is said [in answer to the question] applies in that question." Al-Fawzī, *Khulāṣa*, 54.
143. What is common to all the particular individual instances is that they share the same genus.
144. What is also common to all the particular individuals in question is that they share the same differentia
145. "That is, in the different individuals (*ashkhāṣ*), regardless of whether the difference is extramental or mental. So, the definition includes the species that is limited to one individual—such as the sun—and the species whose name is heard but whose body is nonexistent, such as the phoenix." Al-Fawzī, *Khulāṣa*, 56.
146. Previously said in the definition of genus.
147. The genus, special accident, general accident, and distant differentia are all said of many that differ in essence, unlike the species, which is said of many that differ in number but not in essence.
148. *Khāṣṣat al-jins*. For example, 'breathing' (*al-mutanaffis*) is a special accident for the genus of animal.
149. Walking
150. Sensing (*al-ḥassās*)
151. *Taḥakkum* means that one has given preponderance to something in the absence of a factor

His saying "in answer to 'What is it?'" excludes the close differentia[152] and the special accident of the species,[153] both of which are said in response to the question "Which thing is it essentially or accidentally?"[154]

Objection to the definition of the species

If you say:

The genus and its analogues[155] are also said of a multitude of individuals differing in number, such as 'animal' in answer to "What are Zayd, 'Amr, this horse, and that horse?"[156] So, how are they [i.e., the genus and its analogues] to be excluded?

Response to the objection

I would respond: If this [objection] were to apply, then it would apply to one who excludes them [genus, etc.] by qualifying "a multitude" with "sharing in essence."[157] As for here [in this context], when he [al-Abharī] negates "differing in essence" with his saying "without [differing] in essence," they [genus, etc.] are properly excluded because 'animal', for example, is not valid as an answer except when the question contains [individuals] that differ in essence, even if [the question] includes with it [individuals] that share [in essence] too.[158] Moreover, its [the objection's] applicability [even] to him [who seeks to exclude the genus by including "sharing in essence"] also bears the burden of proof [*fī ḥayyiz al-manʿ*].[159] So, the validity of answering [the question "What

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that causes preponderance (*tarjīḥ bi-lā murajjiḥ*). Al-Fawzī, *Khulāṣa*, 143. Other definitions were mentinoned previously.

152. Such as 'rational'.
153. *Khāṣṣat al-nawʿ*, such as 'laughing'. Al-Fawzī, *Khulāṣa*, 56.
154. The close differentia is said in response to "Which thing is it essentially?" and the special accident is said in response to "Which thing is it accidentally?" and not to "What is it?" Al-Fawzī, *Khulāṣa*, 56.
155. Distant differentia, special accident of the genus, and general accident.
156. Extending to things that differ in essence (i.e., Zayd and this horse) and treating things that share (in essence, i.e., Zayd and 'Amr) as one.
157. Al-Fanārī is referring to al-Kātibī, who said: "[The species is] a universal said of one or many agreeing in essential reality in answer to 'What is it?'" *Shamsiyya*, 129. This phrasing of the definition excludes the genus and its likes by adding the phrase "agreeing in essential reality."
158. Such as Zayd and 'Amr or the two horses. It is only valid to answer this question with the genus 'animal' when taking into consideration that the question includes things differing in essence—Zayd and this horse—even if it also includes those that agree in essence (i.e., Zayd and 'Amr).
159. That is, the cited objection applies neither to al-Abharī's phrasing nor to the phrasing in

is it?"] with the genus takes into consideration the question's extending to things that differ in essence and treating things that share [in essence] as one.

Definition of the differentia

(3) (As for that which is not said in response to "What is it?" rather it is said in response to "Which thing is it essentially?" [*fī dhātihi*]), the question "Which thing is it?" is about the distinguishing factor [*al-mumayyiz*]. If it is qualified by his saying "essentially," then [the question is about] its essential distinguishing factor; if it is qualified by his saying "accidentally," then [the question is about] its accidental distinguishing factor. If it is unqualified, then [the question is about] its unconditioned distinguishing factor [*al-mumayyiz al-muṭlaq*].

With that he says (Which is that which distinguishes a thing from that which shares in the same genus, such as 'rational' with regard to 'man') indicating that every quiddity that has a differentia definitely has a genus. This has been mentioned in [Ibn Sīnā's] *al-Shifā'*. As for the later scholars, they chose what was mentioned in *al-Ishārāt*, and it is that the differentia is more general than distinguishing a thing from those that share the same genus [*al-mushārikāt al-jinsiyya*] or those that share in existence [*al-mushārikāt al-wujūdiyya*]. This disagreement is based on the impossibility of the quiddity being composed of two coextensive things [*mutasāwiyān*] according to the earlier scholars while the later scholars considered it possible. It is as though the author [al-Abharī] chose the school of the earlier scholars and did not mention it in his definition, sufficing with what was before it,[160] or hinting at the two schools in the two places.[161]

(Which is the differentia).

Division of the differentia into close and distant

[It is] the close [differentia] if it distinguishes it from those that share the same close genus, which is proper in answer to [a question about] the quiddity and all which shares that genus,[162] such as 'rational' and 'animal'. [It is] the distant [differentia] if it distinguishes it from the distant genus, which is not proper in

al-Kātibī's *Shamsiyya*. Al-Fawzī, *Khulāṣa*, 56.

160. That is, he sufficed with the mention of the genus in the discussion of the species before the first definition of the differentia. Al-Fawzī, *Khulāṣa*, 59.

161. The first place is when he says, "which is that which distinguishes a thing from that which shares in the same genus," and the second place is several lines below where he says, "which is described as a universal said of a thing in answer to 'Which thing is it?'"

162. Such as every animal.

answer to [a question about] the quiddity and all which shares that genus, such as 'those who possess senses' and 'those with vegetative qualities' (*al-nāmī*).[163]

Exclusions from the definition of the differentia

(And it has been described as a universal said of a thing in answer to "Which thing is it?"…).

Genus and species are excluded due to their non-applicability as answers to "Which thing is it?" Rather, [genus and species are said] in answer to "What is it?" [Also excluded are] the general accident [*al-ʿaraḍ al-ʿāmm*] due to its non-applicability as an answer to anything [*aṣlan*]. (…essentially) by which is excluded the special accident [*al-khāṣṣa*].

Classification of Accidental Universals

(As for accidentals), then it is of two types: the special accident and the general accident. This is because if it is peculiar to one essence [*ḥaqīqa*], then it is a special accident. If it comprises a plurality of essences, then it is a general accident.

With regard to this classification, the universals become five in number, even if there is included therein another classification scheme[164] based on his saying:

Inseparable and separable accidents

(Either they cannot be separated from the quiddity), whether their separation from the quiddity is impossible in and of itself [*min ḥaythu hiya hiya*]—such as three being an odd number—or from the quiddity as it exists, such as the blackness of the Abysinnian, (which is the inseparable accident…). The first [i.e., in and of itself] is that which is inseparable of the quiddity [*lāzim al-māhiyya*] and the second [i.e., as it exists] is that which is inseparable of the existence [*lāzim al-wujūd*]. (…or)[165] their separation from the quiddity (is not impossible) (which is the separable accidental) due to the possibility of its separation regardless of whether it occurs quickly in actuality—such as

163. Such as plants and animals.

164. That is, both the special accident and the general accident could be subdivided into separable and inseparable accidents.

165. This is connected to the previous phrase "Either they cannot be separated from the quiddity…or their separation is not impossible…."

the redness of a shy person or the yellowness of the fearful person—or slowly such as youthfulness, or it does not occur at all such as perpetual poverty for one for whom richness is possible.

Definition of the special accident

(Each of these two), that is, the separable and inseparable (are either peculiar to a single essence—which is the special accident [*al-khāṣṣa*]). The inseparable special accident is (like having the potential to laugh and) the separable special accident is [like] (actually) laughing (with regard to 'human'). The special accident (is described as a universal said of that which is only under a single essence…)

Exclusions from the definition of the special accident

…by which is excluded other than the species and the close differentia,[166] the two of which are excluded by his saying (…as an accidental saying [*qawlan ʿaraḍiyyan*]).

Definition of the general accident

(or) both of the inseparable and separable (are[167] generalizable to more than one essence, which is the general accident, such as 'potentially breathing'), which is an example of the inseparable general accident, (and 'actually breathing'), which is an example of the separable general accident. And for his saying (with regard to 'human' and other than it from among animals), it is connected to the two [actual and potential] and is an explanation of their generality. (Which is described as a universal said of that which is under multiple different essences…)

Exclusions from the definition of the general accident

…by which is excluded other than the genus and the distant differentia, the two of which are excluded by his saying (…as an accidental saying).

166. "…other than the species and the close differentia" includes genus, general accident, distant differentia, and special accident of the genus. Al-Fawzī, *Khulāṣa*, 64.

167. This continues from "(…either peculiar to a single essence…or) both of the inseparable and separable (are…)."

2

Regarding the Aims of Conceptions

The second chapter regarding the aims of conceptions and it [the aims] is the chapter on (The explanatory saying) which is synonymous[1] with the 'definiens' [*al-muʿarrif*].

Why is it called a "saying"?

It [the definiens] is called a "saying" [*qawl*] because a saying is a composite.[2] The definiens is always composite, according to one group [of scholars],[3] or predominantly[4] composite, according to others.[5]

The correct opinion is the first one, but not[6] because the definiens is a subdivision of reflective reasoning [*naẓar*], which is the ordering of known matters [*tartīb al-umūr al-maʿlūma*]. Indeed, reflective reasoning being an ordering of matters is based on the invalidity of defining [a term] with a simple term [*mufrad*], and if that[7] were built on this,[8] then it would entail cyclical

1. "*Al-tarāduf* in the Arabic language means two people riding on one animal. Its technical meaning is two expressions being such that the one differs verbally from the other while their meanings are united, such as *al-asad* and *al-layth*." Al-Fawzī, *Khulāṣa*, 65.
2. According to the logicians, a saying (*qawl*) is composite rather than simple or singular. Some grammarians do not define a *qawl* as such, so in the context of logic, *qawl* is a technical term. See Ibn Hishām, *Sharḥ Qaṭr al-nadā wa-ball al-ṣadā* (Beirut: al-Maktaba al-ʿAṣriyya, 1994), 37. The definition is called an explanatory saying because it consists of multiple parts, such as a genus and differentia (e.g., rational animal), or a multitude of accidents (e.g., biped, broad fingernails, stands upright, etc.). Al-Fawzī, *Khulāṣa*, 66.
3. This is the opinion of the early logicians (*al-mutaqaddimūn*). Al-Fawzī, *Khulāṣa*, 66. Qarah Khalīl, *Ḥāshiyat Qūl Aḥmad*, 246.
4. Predominantly, meaning, most of the time.
5. This is the opinion of the later logicians (*al-muta'akhkhirūn*). Al-Fawzī, *Khulāṣa*, 66.
6. T does not have "not" before "because," neither in the text of al-Fanārī nor in the text of the commentaries. However, this is an error as al-Fanārī will soon say, "Rather, because the definiens…."
7. "'That', meaning every definiens being composite" (*kawn kull muʿarrif murakkaban*). Al-Fawzī, *Khulāṣa*, 66.
8. "'This', meaning *naẓar* being the ordering of matters" (*kawn al-naẓar tartīb al-umūr*).

[*dawr*][9] reasoning. Because of this,[10] some defined reflective reasoning[11] as 'obtaining a matter' [*taḥṣīl amr*] or 'ordering matters' [*tartīb umūr*].

Rather[12] [the first opinion—the definiens is always composite—is correct] because the definiens necessarily involves conceiving the affirmation of something for something else, therefore, it is composite. This[13] is the meaning of their saying, "There must necessarily be a rational contextual indicant validating the transference." With that, they said that the meaning of 'the rational' [*al-nāṭiq*] is 'a thing which has rationality' and the meaning of 'the laughing [one]' is 'a thing which has laughter'.

Why is it called "explanatory"?

Moreover, they called it "explanatory" due to its explaining the quiddity either by its essence[14] [*kunhihā*]—which is the definition [*al-ḥadd*]—or from a perspective by which it[15] is distinguished from that which is other than it[16]—which is the description [*al-rasm*].

Al-Fawzī, *Khulāṣa*, 66.

9. The cyclical reasoning appears to be:
   Definientia (s. definiens) are always composite.
   How do you know?
   Definientia are a subset of reflective reasoning (*naẓar*).
   How do you know?
   Reflective reasoning (*naẓar*) is putting matters in order (*tartīb al-umūr*).
   How do you know?
   Definientia are not valid with a singular word [Definientia are always composite].
   Qūl Aḥmad and his glossator discuss whether the reasoning is in fact cyclical. Qūl Aḥmad, *Fawā'id*, 59. Al-'Imādī, *Ḥāshiyat Qūl Aḥmad*, 248
10. "That is, on account of *reflective reasoning* being based on the invalidity of defining with a simple term, (some defined [reflective reasoning] as…) …." Al-Fawzī, *Khulāṣa*, 66.
11. Some endeavored to define reflective reasoning as such in order to encompass both opinions in one definition.
12. This is connected to his saying "…but not because the definiens is…."
13. This—the previously mentioned saying "the definiens necessarily involves conceiving the affirmation of something for something else"—is the meaning of their saying, "There must necessarily be a rational contextual indicant validating the transference."
14. "That is, by all of its [the definiendum's] essential properties, such as 'neighing animal' with regard to the definition of horse." Al-Fawzī, *Khulāṣa*, 68.
15. "That is, or from a perspective by which the quiddity of the definiendum is distinguished from the quiddity of that thing that is other than it." Al-Fawzī, *Khulāṣa*, 68.
16. "That is, that which distinguishes the defined quiddity from other than it." Al-Fawzī, *Khulāṣa*, 68.

Description of the Definiens

So, the definiens is:

that thing the conception of which is a cause for the acquisition of the conception of the thing [i.e., definiendum] either by its essence[17] or from a perspective that distinguishes it from that which is other than it.[18]

Exclusions from the description of the definiens

Our saying "whose conception" excludes assents [*al-taṣdīqāt*] and our saying "for the acquisition"[19] excludes the implicant[20] [*al-malzūm*] in relation to its evident implicates [*lawāzimihi al-bayyina*].[21]

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17. This indicates the definition (*al-ḥadd*). That is, the conception of all of the essential qualities (*dhātiyyāt*) of the thing defined (defeniendum). See al-Fawzī, *Khulāṣa*, 67.
18. This indicates the description (*al-rasm*). In this case, the definiens is a word the conception of whose meaning causes one to acquire the conception of the definiendum due to its (the definiens) distinguishing the definiendum from that which is other than it by means of conceiving of its close genus (animal) and inseparable accidents (*aʿrāḍ*), or a combination of inseparable accidents.
19. Qūl Aḥmad describes acquisition as follows: "Acquisition is causing something to obtain voluntarily such that the sought conceptual knowledge, which is the object of awareness, is put first, then its essential and accidental properties are proceeded to, and these are composed with each other in a composition that leads to what is sought." Qūl Aḥmad, *Ḥāshiyat Qūl Aḥmad*, 261–2. So, in the case of a definition, one starts with a general awareness of the definiendum whose meaning is sought—since something wholly unknown is not inquired after—then one proceeds to its essential and accidental properties and composes them into a complete definition, an incomplete definition, a complete description, or an incomplete description by which the quiddity of the definidendum is acquired. One asks, "What is a human?" So, 'human' is put first, then its essential attributes—'animal', 'body', 'rational'—along with its accidental attributes—'laughing', 'breathing', 'walking', etc.—are considered and then compiled into 'rational animal', 'rational body', 'laughing animal', or 'biped, with broad fingernails, with clear skin, upright' which then allow one to understand either the essential meaning of 'human' or a non-essential meaning which distinguishes it from non-humans. This is different from understanding the meaning 'rational animal' from 'capable of writing', which is known through necessary implication (*iltizām*), where conception of 'capable of writing' leads self-evidently to 'rational animal' and vice-versa.
20. "This is because an evident entailment (*al-luzūm al-bayyin*) obtains for its implicant (*malzūm*) self-evidently (*bi-l-badāha*), not through acquisition. For example, the rising of the sun is the implicant (*malzūm*) of the existence of daytime, and obtaining [knowledge] of daytime upon the rising of the sun is self-evident, not acquisitional." Al-Fawzī, *Khulāṣa*, 67.
21. As mentioned previously, the evident entailments (or implicates) of a thing are obtained through mere conception of the implicant. So, when one conceives of 'the rising of the sun' one conceives of 'daytime' without going through a process of moving from the known to the unknown and thereby acquiring new knowledge. Rather, conception of daytime comes without multi-step reasoning. So, this phrase might be rendered "Our saying 'for

Our saying "either" and "or" is in order to include both the definition [*al-ḥadd*] and the description [*al-rasm*].[22] The classification [*al-taqsīm*][23] is for the thing defined [definiendum],[24] not the definiens. The sign [or token] of this is the disjunction's[25] being for the prevention of mutual exclusion [*māniʿ al-khulū*].[26] Thus is the narration from Shams al-Aʾimma al-Iṣfahānī.[27]

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the acquisition' excludes that thing [the implicant/*malzūm*] the conception of which is a cause for conceiving of another thing [the implicate/*lāzim*] through mental entailment."

22. Were we to merely say "the definiens is that thing the conception of which is a cause for the acquisition of the conception of the definiendum," one might assume that only the complete definition is included, and not the incomplete definition, the complete description, or the incomplete description. With that, "either by its essence or from the perspective…" ensures that the complete and incomplete definitions and descriptions are understood to be included in the definition of 'definiens'.
23. The classification into the essential and accidental attributes of the definiendum is not a classification into definition and description; rather this is a classification of the attributes of the thing being defined. Qūl Aḥmad, *Fawāʾid*, 63.
24. Al-Fanārī's definition of the definiens tells us that the word whose meaning is conceived becomes a cause for the conception of two subcategories of qualities of the definiendum. It is the qualities of the definiendum that are being classified, not the definiens itself. For example, 'human' is the definiendum and 'rational animal' is the definiens. So, the conception of the meaning of the definiens causes one to conceive of either the thing's essential qualities—animality and rationality (complete) or corporeality and rationality (incomplete)—or those essential and accidental qualities which distinguish it from other than it (i.e., animality [essential, close genus] and laughing [accidental, inseparable and specific (*khāṣṣa*)]) or a collective of inseparable accidents (*lawāzim*) (i.e., upright, broad fingernails, etc.).
25. The disjunction by means of the particles "either" or "or."
26. Prevention of mutual exclusion and not mutual inclusion. See al-Fawzī, *Khulāṣa*, 68. Also, see Qūl Aḥmad, *Fawāʾid*, 63.

    So, the "either/or" prevents the possibility that a definiendum could lack both of these (i.e., essence or the properties which distinguish it from other than it). However, both the essence and the accidental properties can be included in the definiendum at the same time (mutual inclusion). One could define the definiendum by mentioning just its essential attributes, or describe it with one essential and one accidental or just a combination of accidental, but it could never be conceived of as lacking both its essential and accidental properties (mutual exclusion). This issue is a much bigger discussion, which is discussed in the commentaries as well as in al-Jurjānī's *Sharḥ al-Mawāqif* and al-Taftāzānī's *Sharḥ al-Maqāṣid*, which are quoted in Qūl Aḥmad. In short, much more can be said on this matter. See al-Sayyid al-Sharīf al-Jurjānī, *Sharḥ al-Mawāqif* (Cairo: al-Maktaba al-Azhariyya li-l-Turāth, 2011), 1:193–4; Saʿd al-Dīn al-Taftāzānī, *Sharḥ al-Maqāṣid* (Cairo: al-Maktaba al-Azhariyya li-l-Turāth, 2020), 1:232.
27. Maḥmūd b. ʿAbd al-Raḥmān b. Aḥmad al-Iṣfahānī (d. 749/1349), author of *Sharḥ al-Tajrīd* and *Sharḥ al-Maṭāliʿ*, also known as Shams al-Dīn.

Objection to the description of the definiens

It has been said that defining 'definiens' is not possible because if a definiens had a definiens, it would entail an infinite regress. It is not to be answered in response to this claim that the definiens of the definiens is the selfsame [definiens] [*ʿaynuhu*] like the existence of existence, because the selfsameness [*ʿaynɨyya*] is not conceded [*mamnūʿa*].

Response to the objection

Rather, it is answered either that an infinite regress is not entailed because the definiens of the definiens qua definiens [*min ḥayth huwa huwa*] does not need another definiens either due to (a) its parts being self-evident[28] or (b) due to their [its parts] being known [*maʿlūma*]. So, just as in and of itself it [the definiens of 'definiens'] is not in need of another definiens, it is likewise not in need of it [another defniniens] inasmuch as it is a definiens, due to its being known with regard to an accidental perspective, namely, the applicability of the unconditioned [*muṭlaq*] defined 'definiens' to it. You already know that the specific [*al-khāṣṣ*] may serve as a definiens [*muʿarrif*] from a perspective other than its specificity. Or [it may be answered] that the regress[29] in subjective matters, due to its cessation when mental consideration ceases, is not impossible.

Classification of the Definiens

So, it is known that the 'explanatory saying' [definiens] is either a definition [*ḥadd*] or a description [*rasm*], because if it is entirely [constructed from]

28. Something that is self-evident (*badīhī*) does not require additional explanation, so if the definition of definiens is "that whose conception of its meaning is a cause for the acquisition of the conception of the thing either by its essential qualities (essence) or from the perspective of those accidental properties that distinguish it from other than it," then it does not require additional definition. It stands alone. It may require contemplation to interpret it, but it is self-evident and not in need of further proof. A phrase whose understanding causes one to understand the qualities of the thing defined does not stand in need of additional definition, such that one would say "what are the essential properties of such a phrase whose conception of its meaning…," since it contains all the necessary terms.

29. *Tasalsul* here is translated as "regress" rather than "infinite regress," since the argument is that although one does not reach an ending while mentally considering it, at any given moment of consideration, the number is finite. In other words, a regress in subjective matters never reaches an actual infinite. An unending regress is always finite at any given moment, unlike an actual infinite, which is when one claims that one has reached infinity at a given moment.

essential properties [*dhātiyyāt*], then it is a definition, and if not, then it is a description.

Definition and classification of the definition

(A definition [*ḥadd*]) is defined as (a saying signifying) the essence [*kunh*] (of the quiddity [*māhiyya*]) of the thing [being defined]), and if it is defined by the entirety of essential properties, then it is a complete definition; if by some of them, then it is an incomplete definition. Its being a definition [*ḥadd*] is because it is a preventor of the entering of others into it, and *al-ḥadd* lexically means "prevention" [stopping, keeping from, etc.]. Its being complete or incomplete is with regard to the essential properties [*dhātiyyāt*], so the complete definition (is that which is composed of the genus of the thing and its close differentia, such as 'rational animal' in relation to 'human'), and with that he [al-Abharī] said (which is the complete definition. And the incomplete definition, which is that which is composed of its distant genus and its close differentia, such as 'rational body' with regard to 'man'). Moreover, we do not say "[composed of] only its differentia" such as 'rational' in the definition of 'human' as [others] have said, because 'rational' is composite in meaning,[30] and what is considered is meanings.[31] So, if its meaning were a body, substance, or something else possessing rationality, then it would be exactly like 'rational body'.[32] If its meaning were 'a thing possessing rationality' or the like, then it

30. 'Rational' does not have a singular meaning; rather, it contains a multitude of meanings wrapped up in a single word. That is because in Arabic the term *nāṭiq* is in the form of an active participle, meaning the one who does the act of rationalizing; it comprises the meaning of the act itself (rationalizing) and the agent of that action. For example, a thinker is a person who thinks, a speaker is a person who speaks. Thinker and speaker both include the meanings of agent and action in the single expression. Another important matter of translation to bear in mind is that the Arabic definition '*ḥayawān nāṭiq*' includes the noun *ḥayawān* and the active participle *nāṭiq*, which we translate as "rational animal." However, *nāṭiq* as an active participle means 'a rationalizing one' or 'a rationalizer' or 'a rationalizing agent' or the like. So, a more literal translation would be "an animal, a rationalizing one." In this latter and more literal translation that retains both action and agent in the active participle, it is clear that '*nāṭiq*' is a composite of the meanings of the act of rationalizing and the agent of that act of rationalizing, and as such, there is an implicit genus, such as animal, body, or substance. If that implicit genus were the close genus, then merely stating '*nāṭiq*' in answer to the question "What is a human?" would be a complete definition. If that implicit genus were a distant genus—such as body or substance—then it would be an incomplete definition.
31. Meanings are what are considered primarily, expressions secondarily. So, 'rational' is equal to a number of words, which includes 'rational' and 'body' or 'substance'.
32. "That is, if its meaning was 'an animal who possesses rationality', then it would be exactly the same as 'rational animal'." Qūl Aḥmad, *Fawā'id*, 70.

would not be a definition because thingness is an accidental property.

Definition and classification of the description

Descriptions, too, are of two categories, complete and incomplete because that which is mentioned in them if it were a close genus qualified by that which specifies it [e.g., inseparable accidents], then it is complete. Due its being a sign [*athar*],[33] it is called a "description" [*rasm*]. Due to its resembling the complete definition in that,[34] it is called a "complete description." If it is not like that [e.g., the previously described close genus qualified by that which specifies it], then it is incomplete, due to its being less than that completeness.

(So, the complete description is that which is composed of the close genus of a thing and its inseparable accidents, such as 'laughing animal' in the definiens of 'human'. The incomplete description is that which is composed of accidental properties, which when taken as a whole, specifically apply to a single essence), regardless of whether some thing [accidental property] from among them [the collective of accidental properties] is not uniquely specific to it[35] or [only] the last one[36] [listed in the collective of accidental properties] is uniquely specific (like our saying in the definiens of human that it is 'one who walks on its two feet' [biped]) 'biped' excludes quadrupeds,[37] ('has broad

33. "Because it is an external inseparable attribute (*khārij lāzim*) composed of the internal and the external externally. The external inseparable attribute for a thing is a sign (*athar*) of that thing." Qūl Aḥmad, *Fawā'id*, 71.
34. "In its being a close genus stipulated by that which specifies it." Qūl Aḥmad, *Fawā'id*, 71.
35. Meaning that one of the collectives of accidental properties might be applicable to something other than the definiendum.
36. Al-Fawzī says: "…that is, regardless of whether only one accidental property for the definiendum were not uniquely specific such that it were also found in other than it, or the collective of accidental properties were not uniquely specific such that they were also found in other than it, and rather what was specific was that which only occurs in the last part such that it is not found in other than it at all (such as our saying in the definition of human…)." Al-Fawzī, *Khulāṣa*, 73. More plainly stated, an incomplete description is when an object being defined is described with a collective of accidental properties such that, when found altogether, could not apply to anything other than the thing defined, even if one of them can be found in other than it, or even all but one accidental property can be found in other than it, that final one being the key to differentiating the definiendum from other than it. In the example of 'human' as 'biped, stands erect, has broad fingernails, has clear-skinned', these four attributes are found in non-humans; however, when a fifth attribute of 'laughing' is added, then the collective of accidental properties signifies humans and only humans. The upshot is that a single accident is insufficient.
37. It does not, however, exclude others which walk on two feet, such as chickens or pigeons. Al-Fawzī, *Khulāṣa*, 74.

fingernails') excludes circular fingernails like those of birds,[38] ('has clear skin') excludes having skin covered by hair,[39] ('stands upright') excluded by 'upright' is 'bent over' [*munḥarif*], each of these four qualities is found in other than humans, so when he said ('by nature capable of laughing'), he excluded other than 'human'.

Objection to the example description of 'human'

[The objection] that is sometimes mentioned does not apply, namely, that some of them[40] make others dispensable.[41]

Response to the objection

Indeed, that [the lack of making other attributes dispensable] is not required [in the incomplete description]. The aim [of the author is not to provide a definiens, rather it] is to give examples [*tamthīl*].[42]

Interpretation of the definition of incomplete description

As for providing a definiens with only 'laughing',[43] then if it was intended by that 'laughing animal', then it would be a complete description, and if it was

38. It does not exclude others which have broad nails, such as cows and others. Al-Fawzī, *Khulāṣa*, 74.
39. This does not exclude that which does not have hair, such as fish. Al-Fawzī, *Khulāṣa*, 74.
40. That is, some of the aforementioned four qualities in the incomplete description of 'human'.
41. Laughing makes all of the previous four qualities dispensable, clear skinned makes upright dispensable, and vice versa. Al-Fawzī, *Khulāṣa*, 74. The upshot here is that the author's list of four accidents which can also be found in non-humans—and are therefore general and not special accidents—coupled with a single species-specific accident (laughing) is not open to refutation on the grounds that some of these four make some or all of the remaining three dispensable, nor on the grounds that the single species-specific accident makes all of them dispensable. Why? Because (a) it is not required in constructing an incomplete description that some accidents not make the other accidents dispensable, rather only with regard to defining in general (*muṭlaq al-ta'rīf*), and (b) the aim of the author was to cite examples of a collection of accidents which, when taken as a whole, indicate a single essence, not to list accidents which were all indispensable with the others. See following footnote.
42. "Clarifying and explaining the examples of species-specific (*mukhtaṣṣa*) accidental properties combined together, wherein this combination specifically signifies one essence. So, there is no discussion [debate] regarding the examples." Al-Fawzī, *Khulāṣa*, 74.
43. Al-Fawzī tells us to place before this sentence: "If it was said that it would have been better for the author after his saying 'the incomplete description is that which is composed of accidental properties, which when taken as a whole, specifically apply to a single essence' that he say 'or just the species-specific accident' in order that the definition of the incomplete description be inclusive, since the species-specific accident also obtains for the

intended by that 'the thing that possesses laughter', then it would be of this kind.[44] As for[45] if it was intended by that 'laughing body', they[46] mentioned that it too—by which I mean that which is composed of a distant genus and special accident—is an incomplete description, although that which was mentioned does not comprise it,[47] so it requires metaphorical interpretation [*taʾwīl*],[48] either in that:

(a) it be said that it falls under the category of lexical preponderation [*taghlīb*][49]

(b) or that of applying the name of the whole to the part,[50] so the entirety that is composed of the essential and the accidental is itself accidental[51]

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incomplete description, then we would say in response to that…as for the definition with only 'laughing'…." Al-Fawzī, *Khulāṣa*, 74.

44. It would be an incomplete description because 'thing' is an accidental property, not an essential property.

45. K includes "(As for if) that (was not intended); rather, ('laughing body' was intended by that…)."

46. "They" refers to the scholars of logic. Al-Fawzī, *Khulāṣa*, 75.

47. That is, in defining 'incomplete description', al-Abharī does not mention that an incomplete description may consist of a distant genus and a special accident, such as 'laughing body', so the definition of incomplete description is not sufficiently inclusive of all that to which the term applies, and it is therefore not valid. This draws from the principles of disputation (*al-baḥth wa-l-munāẓara*), wherein a definition can be critiqued if it is not sufficiently inclusive of all instances to which it applies, or if it is not sufficiently exclusive of all that to which the term does not apply. Therefore, in order to salvage the validity of al-Abharī's definition, one would have to metaphorically interpret al-Abharī's statement "that which is composed of accidental properties, which when taken as a whole, specifically apply to a single essence" to mean one of the three examples given in what follows.

48. "It is said that 'the difference between *taʾwīl* and *tafsīr* is that the latter clarifies and distinguishes a meaning that is immediately apparent from the expression by means of some contextual indicant, whereas *taʾwīl* clarifies and distinguishes a meaning that is not immediately apparent from the expression', end quote." Al-Fawzī indicates he is quoting but does not identify the source. Al-Fawzī, *Khulāṣa*, 75.

49. A clearer example of *taghlīb* is the use of "*muʾminīn*" to include both "*muʾminīn*" and "*muʾmināt*" or "*al-abawayn*" to include both *al-ab* and *al-umm*. So, by defining it as a collective of accidents, it was to be understood to also include a combination of a special accident and a distant genus by way of lexical preponderation.

50. Applying the whole—in this case the term "incomplete description"—to the part—in this case the example given of a collection of accidentals that indicate a single essence. Al-Fawzī, *Khulāṣa*, 75.

51. That is, al-Abharī defines it as "a collection of accidents, which when taken as a whole…." So, while the example of 'laughing body' contains an essential distant genus ('body') when both terms are taken as a whole, the end result is an accidental. (Accidental + Essential = Accidental). So, his definition includes both a collective, where all parts are accidents,

(c) or it be said that he mentioned that which is predominant in actual existence.[52]

Objection to description with a general and special accident

If you said: 'Laughing thing' is composed of a general accident [*al-ʿaraḍ al-ʿāmm*][53] and a special accident, so there is no benefit in it because the general accident does not lead to distinction[54] nor does it indicate an essential,[55] while definition is for one of these two benefits. The same applies to a definiens with a differentia and a special accident.

Response to the objection

I would say: That has been said,[56] it may be true, or it may be false. As for the truth that deserves acceptance, it is [as follows]: Conceiving a thing with the general accident and the special accident is stronger than conception with just the special accident. Likewise, conception with the differentia and the special accident is stronger than conception with just the differentia. So, how can there not be benefit in either of them?

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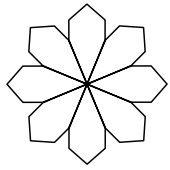
as well as a collective which consists of both essential and accidental universals. Since the end result is accidental (i.e., this collective of essential and accidental universals is accidental), it still falls under the definition given by al-Abharī, as all parts of the whole are covered by the name of the whole, even if each part is not mentioned.

52. While al-Abharī knew that sometimes an incomplete description could consist of a distant genus and special accident, he defined incomplete description using its most commonly occurring form, which is a close genus and special accident.
53. 'Thing' is an accidental property of all existents (*mawjūdāt*). Al-Fawzī, *Khulāṣa*, 76.
54. …and therefore cannot be a description. Al-Fawzī, *Khulāṣa*, 76.
55. …and therefore cannot be a definition (*ḥadd*). Al-Fawzī, *Khulāṣa*, 76.
56. "That which has been said" refers to the claim that the purpose of "the definition is for one of these two benefits." This claim may be true, or it may be false, but regardless of that, al-Fawzī tells the reader that the main thing that is true and should be accepted is: "The conception with the general accident and…." Furthermore, Qūl Aḥmad tells us that "the truth which deserves acceptance" is: "We do no submit to the claim that the aim of definitions is limited to these two benefits; rather, it may be that what is sought is to come to know (*iṭṭilāʿ*) that which is accidental for a thing, and if this indicating is done without indicating that which is essential for it or that which is distinguishing (from others) for it, then the conception of the thing might be from differing perspectives, some of them more complete than the other…." He then proceeds to give examples of combinations that are more complete than others. Qūl Aḥmad, *Fawāʾid*, 74.

The principle of the classification of definientia

The principle[57] [*al-ḍabṭ*] is that the definiens [composed] with just essentials in their totality is a complete definition, and [when it is composed with just essentials], part of which [are mentioned], then it is an incomplete definition. A definiens that is not composed of only essentials but rather of a close genus and a special accident is a complete description. [That which is not composed of only essentials] but composed of other than them [other than the close genus and the special accident] is an incomplete description. Based on this, the general accident with the differentia or the special accident, and the special accident with the differentia, and the distant genus with the special accident, all of them are incomplete descriptions.[58]



57. That is, the principle or rationale for the classification of definitions into four categories. Al-Fawzī, *Khulāṣa*, 77.

58. If one compiles all of the possible combinations of only essentials, only accidents, or essentials plus accidents, the following rules will cover all possibilities. Any combination of essentails alone must contain the close differentia in order to be a definition (complete or incomplete); close genus (animal) or distant genus (body) plus a distant differentia ('those who possess senses') does not sufficiently distinguish one definiendum from another. Regarding descriptions, any combination of only accidents must either include a special accident (laughing) or, when considered altogether, the collective of general accidents must be distinguishable from any other definiendum. A combination of essentails and accidents must include the special accident, or an essential plus a collective of general accidents that distinguish the definiendum from all others. The rule regarding essentials and accidents applies to all incomplete descriptions, while the combination of the close genus and the special accident alone produces the complete description. Whatever the combination, a logical definition or description must distinguish the definiendum from all others.

3

The Points of Departure for Assents: Propositions and Their Properties (Such as Contradiction and Conversion)

The third chapter is the chapter regarding the points of departure for *assents* [*al-taṣdīqāt*]; and they [the points of departure] are (Propositions) and their properties.[59] (The proposition is a saying [*qawl*] for which it is correct to say of the one who utters it that he is truthful in it [the saying] or untruthful in it). It [the saying] is a composite that when verbally expressed is the genus for the verbally expressed proposition, and when mentally conceived, is the genus for the mentally conceived proposition; the remainder of the qualifications[60] are a differentia by which are excluded composite non-declarative [*al-inshā'iyya*] [sentences]—whether they are requests[61] or other than that[62]—or restrictive sayings[63] [*al-taqyīdiyya*] because the veracity or falsity of the statement is [in the case of the true statement] the correspondence of its

59. The properties or "rulings" (*aḥkām*) associated with propositions are contradiction and conversion.

60. The commentaries discuss the use of the plural in "qualifications." It may have been better to say, "[T]he remaining qualification is the differentia," since the full phrase "for which it is correct to say of the one who utters it that he is truthful in it [the statement] or untruthful in it" can be considered the differentia and therefore one stipulation. Others have read this as including the genus as one qualification and the remainder as another qualification. See Qūl Aḥmad, *Ḥāshiyat Qūl Aḥmad*, 303. However, al-Fawzī considers the first qualification to be "it is correct to say of one who utters it that he is truthful in it" and the second qualification to be that "[he is] untruthful in it."

61. *Ṭalabiyya*, translated here as "requests," includes commands and prohibitions (*al-amr wa-l-nahy*).

62. Categories of sayings other than requests include wishes, expressions of amazement, contractual statements, and others.

63. Restrictive or stipulative sayings (*al-aqwāl al-taqyīdiyya*) include an attribute and the noun to which it is attributed, such as 'the green car'.

judgment [*ḥukm*][64] to reality,[65] or belief,[66] or both of them together,[67] or [in the case of the false statement] the lack [of such correspondence].

There is no judgment in non-declarative sentences nor in restrictive sayings, because judgment is conveying [*adāʾ*] what is actually the case [*al-wāqiʿ*] in reality [*nafs al-amr*][68] from [one of] the two extremes[69] of the nexus [*ṭarafay*

64. Judgment (*ḥukm*) has the general meaning of 'establishing something for another thing' (*thubūt shayʾ li-shayʾ*) or 'establishing a matter for another matter' (*thubūt amr li-amr*). Then it has more specific meanings depending on the type of *ḥukm*. So, a legal ruling (*al-ḥukm al-sharʿī*) establishes one of the five legal rulings for an action, such as "Consuming wine is impermissible." Here, we are establishing impermissibility for the act of consuming wine. A theological ruling (*al-ḥukm al-iʿtiqādī*) establishes—via the epistemological channel of divine revelation—that something in the extramental world is true, like "Angels are made of light" or "Humans are made of clay" or "Allah has the attribute of hearing," etc. The judgment in the proposition "X is Y" is that Y is established for X, whether that proposition is legal, rational, revelatory, etc.
65. This is the dominant opinion, and the one considered correct. Al-Fawzī, *Khulāṣa*, 78.
66. This is the opinion of the Muʿtazilī scholar al-Naẓẓām. Al-Fawzī, *Khulāṣa*, 78.
67. That the veracity of a statement is its correspondance to both belief and reality is the opinion of the Muʿtazilī scholar al-Jāḥiẓ. In summary, the definition of 'truthful' (*ṣidq*), in the sense that a statement is deemed true, is that the judgment contained within that proposition corresponds to reality, according to the majority of scholars. However, the Muʿtazilī scholar al-Naẓẓām held that truthfulness meant the correspondence of the judgment to what one believed to be the case in reality. Al-Jāḥiẓ held that for a statement to be deemed true, its judgment had to correspond to both reality and what one believed to be true. So, if one believed that Zayd was sitting, and it was in fact true in reality, then the statement "Zayd was sitting" is true according to all three. However, if one believed Zayd was sitting, but in fact he was standing, then according to al-Naẓẓām the statement "Zayd is sitting" would still be considered true, whereas according to al-Jāḥiẓ it would not, since the belief and reality do not match. Likewise, if one believed Zayd to be standing, but in fact he was sitting, then the statement "Zayd is sitting" would not be true, because the belief and reality to do not match, even if the judgment in the statement corresponds to reality. Al-Fawzī, *Khulāṣa*, 78.
68. Al-Fanārī tells us that 'judgment' is 'conveying about reality as it actually is from the two extremes of the relation' (*adāʾ li-l-wāqiʿ fī nafs al-amr min ṭarafay al-nisba*). The terms '*al-wāqiʿ*' and '*nafs al-amr*' are sometimes used interchangeably, but here I read—based on the commentaries—'the reality' to be 'the thing that is actually established' and '*nafs al-amr*' to be actuality or reality. The 'two extremes of the relation' are the occurrence or non-occurrence of the copulative/nexus between the subject and the predicate. In other words, whether X is in fact Y, or X is in fact not Y. So, a judgment is the conveying about what is actually established in reality, and that which is actually established in reality is whether or not the predicate is unified with the subject (X is Y) or the predicate is not unified with the subject (X is not Y). See Qarah Khalīl's comments on *min ṭarafay al-nisba.* Qarah Khalīl, *Ḥāshiyat Qūl Aḥmad*, 306.
69. The two extremes are occurrence and non-occurrence of the relation. Or, as others have said, the unification of the predicate with the subject or the lack of unification of the predicate with the subject. More simply, the two extremes are affirmation and negation.

al-nisba] in the past, present, or in the future,[70] while there is no conveyance with regard to non-declarative speech or restrictive sayings.

Classification of Propositions According to Nexus and Extremes: Categorical and Hypothetical

(and they [propositions] are either categorical [*ḥamlīyya*] such as our saying "Zayd is a writer" or "…is not a writer," or hypothetical [*sharṭīyya*]) because it is necessary that the proposition includes affirmation[71] of a judgment-nexus [*al-nisba al-ḥukmīyya*] or the negation[72] of it [the judgment-nexus]. So, the nexus, if it is of the [affirmation of] existence [*thubūt*] of one [conceived] thing for another [conceived] thing,[73] then the proposition that says that it [the nexus] is affirmed or negated is categorical [*ḥamlīyya*].

So, a judgment conveys or reports that X is Y (affirmative) in reality, or that X is not Y (negation) in reality. Whether or not this statement is true depends on whether it actually corresponds to reality. If one says "Zayd has arrived," and Zayd has in fact arrived, then the judgment contained in the proposition has conveyed that the reality is that Zayd has arrived, and the statement is deemed true because what it conveys corresponds with reality. However, if one says "Zayd has arrived," but he has not in fact arrived, then the proposition contains a judgment in that it conveys that the reality is that Zayd has arrived, yet it is not in fact true that Zayd has arrived in reality. There is the reality, the report about reality, and correspondence of that report to reality. These are the three core elements in this discussion. Qarah Khalīl, *Ḥāshīyat Qūl Aḥmad*, 306.

70. Past, present, and future are states (*aḥwāl*) of the nexus, that is: Zayd arrived, Zayd arrives, Zayd will arrive.

71. "That is, from the knowledge connected to occurrence of the judgment-nexus, which is one of the parts of the propositions." Al-Fawzī, *Khulāṣa*, 79.

72. "Or it necessarily contains the knowledge connected with the non-occurrence of the judgment-nexus. Know that the proposition, unconditionally, whether categorical or hypothetical, is composed of four parts: (1) the first extreme; (2) the second [extreme]; (3) the in-between nexus (*al-nisba bayn bayn*), which is establishment in the categorical [proposition] and conditionality or disjunction in the hypothetical proposition; and (4) the judgment-nexus by which is intended the complete informative relation (*al-nisba al-tāmma al-khabarīyya*), namely, occurrence or non-occurrence in categorical and hypothetical [propositions]. This is according to the later logicians (*al-muta'akhkhirīn*); according to the earlier logicians (*al-mutaqaddimīn*), the parts of a proposition are three: the first extreme, the second [extreme], and the complete informative nexus." Al-Fawzī, *Khulāṣa*, 79.

73. If it is by the establishment of a conceived meaning (*mafhūm*) for an essence (*dhāt*)—the essence here being the other conceived thing in the statement "…a conceived thing for another conceived thing."

If it is of the existence of one [conceived] thing upon [*ʿinda*] the existence of another [conceived] thing,[74] or [if it is] of the existence of the disunion[75] between one [conceived] thing and another [conceived] thing,[76] then the proposition that says that it [the nexus] is affirmed or negated is hypothetical [*sharṭiyya*].[77]

From this it is known, as well, that the hypothetical is (either conditional, such as our saying, "If the sun has risen, then the day has come"); therein it is judged that the existence of day with [*ʿinda*] the rising of the sun has occurred. [It is also] like our saying, "It is not the case that if the sun has risen, then night has come"; therein it is judged that the existence of night with the rising of the sun has not occurred.

(or [the hypothetical is] a disjunctive hypothetical, such as our saying, "Numbers are either even or odd); therein it is judged that the disunion between oddness and evenness of numbers has occurred. And such as our saying, "It is not the case that numbers are either even or divisible into equal numbers"; therein it is judged that the disunion of division into equal numbers and even numbers did not occur.[78]

The parts of the categorical proposition

(The first part of a categorical proposition is called the subject [*mawḍūʿ*]) because it is placed[79] in order to have something predicated of it. (The second [part of a categorical proposition is called] the predicate [*maḥmūl*] due to its being predicated of the first [part].[80]

74. This is an example of the *muttaṣila* or conditional hypothetical proposition.
75. K has *muʿānada* instead of *mubāyana*, and comments on that word, saying: "Such as the opposition between odd numbers…and even numbers."
76. This being the *munfaṣila* or disjunctive hypothetical proposition.
77. Qūl Aḥmad says: "As for calling it hypothetical (*sharṭī*), it is because the hypothetical condition (*sharṭ*) exists explicitly in the conditional hypothetical proposition and implicitly in the disjunctive hypothetical proposition, because our saying 'A number is either even or odd' has the effective meaning of 'If a number is even, then it is not odd, and if it is odd, then it is not even'." Qūl Aḥmad, *Fawāʾid*, 78.
78. That is, even numbers and divisibility into equal numbers are not contrary or contradictory, therefore, contrariety did not occur.
79. The subject is called the *mawḍūʿ* (the thing placed) because it is placed (*wuḍiʿa*) in order to have something predicated of it.
80. That is, in the statement "Zayd is a writer," you first put the word 'Zayd' in order to attribute to it the word 'writer' (there being no copula or verb 'to be' in nominal sentences in the Arabic language), which you have attributed to Zayd secondly. "First" and "second" refer to a firstness and secondness on account of its root grammatical form and to natural meaning, not on account of its actual uttered sequence. Otherwise, "sayeth the man" would

The parts of the hypothetical proposition

(The first part of a hypothetical proposition), that is, whichever type of hypothetical proposition[81] it may be, (is called the antecedent [*muqaddam*]) due to its naturally being put first even if put last in applied context [*waḍʿan*]. (The second [part of a hypothetical proposition] is called the consequent [*tālī*]) due to its following [what came before it].

Quality

From what was previously mentioned,[82] it is known that (the proposition), whether categorical, conditional hypothetical, or disjunctive hypothetical (is either affirmative) if the judgment in it is affirmation[83] [of a nexus][84] (such as our saying) in regard to the categorical proposition ("Zayd is a writer"; or it is negative) if the judgment in it is negation [of a nexus] (as in our saying) in regard to the categorical proposition ("Zayd is not a writer"). As for examples of hypotheticals, they were mentioned previously.[85]

Quantity

(Each of them), that is, affirmative and negative [propositions], is either singular[86] [*makhṣūṣa*], quantified [*maḥṣūra*], or unquantified [*muhmala*]. The quantified proposition is either universal or particular. Thus, among [the

make 'sayeth' the subject and 'the man' the predicate, which is obviously not the case. See al-Fawzī, *Khulāṣa*, 80–1.

81. "He means, whether it was conditional or disjunctive, or whether [through] entailment or coincidence (*luzūmiyya* or *ittifāqiyya*)." Al-Fawzī, *Khulāṣa*, 81.
82. Regarding "everything that came before," al-Fawzī indicates that al-Fanārī intends starting from "So, the nexus, if it is of the [affirmation of] existence (*thubūt*) of one [conceived] thing for another [conceived] thing…." Al-Fawzī, *Khulāṣa*, 81.
83. I am rendering *īqāʿ* as "affirmation" rather than the more clunky transitive and literal meaning of "causing the occurrence," basing myself on Qūl Aḥmad's explanation of *īqāʿ* as "it is perceiving that the relation has occurred" (*wa-huwa idrāk anna al-nisbah wāqiʿa*). Qūl Aḥmad, *Fawāʾid*, 80.
84. Whether this nexus (*nisba*) is establishing X for Y (*thubūt*), making X necessarily entail Y (*luzūmiyya*), or disjunctive coincidence (*ittifāqiyya*).
85. Such as the examples "If the sun has risen, then day has come" and "Numbers are either odd or even."
86. In English logic texts, the term "singular" is often used, and, following convention, it is used here. However, *makhṣūṣa* is more accurately translated as "specified," as in a specified individual.

classes] of propositions, two are singular,[87] two are unquantified,[88] and four are quantified.[89]

That is because the judgment [*ḥukm*] in every affirmative or negative [proposition] is either:

Singular

upon a specified subject [*mawḍūʿ mushakhkhaṣ*], which is the singular, or

Quantified

upon other than it wherein if the quantity [*kammiyya*] of its individual parts is distinguished [*buyyina*] therein—whether all or some—by mentioning the quantifier [*sūr*]—that is to say, the expression indicating it [the quantity]—then it is quantified.

Unquantified

If not [that is, if the judgment is not upon a specified subject, nor a distinguished quantity], then it is unquantified.

Conditional and Disjunctive Hypotheticals

As for hypotheticals:

1. If the judgment contained within them [the propositions] is one of conditionality [*al-ittiṣāl*] or disjunction [*al-infiṣāl*] in a designated time, then it is singular, and
2. If not, then if the quantity of time has been distinguished [*buyyina*]—whether all or some of it—then it is quantified, and
3. If not [that is, no time has been designated nor its duration distinguished], then it is unquantified.

87. The two singular propositions are: (a) affirmative singular propositions, such as "Zayd is a writer," and (b) negative singular propositions, such as "Zayd is not a writer."
88. The two unquantified propositions are: (a) affirmative unquantified propositions, such as "Cats are good pets," or (b) negative unquantified propositions, such as "Cats are not good pets."
89. The four quantified propositions are: (a) universal affirmative quantified proposition, such as "All cows eat grass," (b) universal negative proposition, such as "No cow eats meat," (c) particular affirmative proposition, such as "Some trees are tall," and (d) particular negative proposition, such as "Some trees are not tall."

In general [the upshot is that], times and states in the hypothetical proposition have the status [*manzila*] of individuals of the subject in the categorical proposition. Examples [for the hypothetical proposition] are well known.

Objection to the division

Were you to say, "This categorization is not encompassing [of all possible categories] due to there being no mention of the natural [proposition] in it."[90]

Response to the objection

I would say, "The object of classification [*mawrid al-qisma*] is the proposition used in the sciences[91] and in producing conclusions [*intājāt*],[92] and they [those propositions used in the sciences] are those that contain judgments upon the particulars[93] of the subject, not upon its nature,[94] as can be found in the longer commentaries."[95]

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90. Singular, quantified, and unquantified are types of categorical propositions, which establish one conceived meaning for something (*mafhūm li-mafhūm*) and include a judgment on the particulars that fall under the subject (*mawḍūʿ*) of the proposition. Natural propositions (*al-ṭabiʿīyya*) are also categorical propositions, which establish a conceived meaning for something, but they do not apply a judgment to the particulars of the subject. Rather, they affirm something more general for the subject, which is not used in proofs in the logical and philosophical sciences. An example of such a proposition would be: "Human is a species" or "Human is a genus." See al-Fawzī, *Khulāṣa*, 83; Qūl Aḥmad, *Fawāʾid*, 82.
91. The sciences intended here are the logical, philosophical, and astronomical (*hayʾatiyya*) sciences.
92. The commentators mention that singular propositions are also rarely, if ever, used in the above-mentioned sciences. Qūl Aḥmad says that they are included because of their infrequent use in syllogistic reasoning, whereas al-Fawzī says they are not considered in the sciences and syllogisms. However, they are included in this categorization because they are suitable to be used in the major premise of Form 1 syllogisms and that they are considered within quantified propositions whereas the natural propositions are not. Qūl Aḥmad, *Fawāʾid*, 82; al-Fawzī, *Khulāṣa*, 83.
93. By particulars of the subject, al-Fanārī means the individual instances (*afrād*) of the subject. Al-Fawzī, *Khulāṣa*, 83.
94. Propositions in the logical, philosophical, and astronomical sciences do not contain judgments on the nature of the subject.
95. In the science of disputation (*ādāb al-baḥth wa-l-munāẓara*), one may respond to an objection of one's classification with a clarification. Here, the objects of classification are those propositions used in the logical, philosophical, and astronomical sciences rather than every single type of proposition. Natural propositions do not enter into the study of logic. See al-Taftāzānī's defense of the theologians' categorization of the means of knowledge (*asbāb al-ʿilm*), wherein he emphasizes that while philosophers seek to identify each and every epistemological channel of knowledge, the theologians only include those channels that lead to religiously relevant knowledge. Saʿd al-Dīn al-Taftāzānī, *Sharḥ al-ʿAqāʾid*

Singular and Quantified Propositions

Each affirmation and negation is (either singular [*makhṣūṣa*] as we mentioned) in the examples given of them[96] (or it is universal and quantified [*musawwara*], such as our saying, "Every human is a writer," and, "Nothing) or no one (from among humans is a writer") (or it is particular and quantified such as our saying, "Some humans) or one from among humans (are writers," and, "Some humans) or one from among humans (are not writers)," or, "It is not the case that some humans are writers," or, "It is not the case that all humans are writers."

From this it is known that the quantifier [*sūr*] in the categorical proposition for the affirmative universal is "all," and for the affirmative particular is "some" or "one," and in the negative universal it is "nothing" or "no one," and in the negative particular "not all," "not some," and "some not."

It is also known regarding the hypothetical that the universal affirmative quantifier is "always" [*dā'iman*] and "whenever" [*kullamā*] and "when" [*matā*] and "whenever" [*mahmā*] and whatever resembles them in meaning. In the affirmative particular, it is "in some cases it is" [*qad yakūnu*] and in the negative universal it is "never" [*laysa al-battata*], and in the negative particular, it is "in some cases it is never" [*qad lā yakūnu*] or "not always" [*laysa dā'iman*] and "not whenever" [*laysa kullamā*] and "not whenever" [*laysa mahmā*]. The aim in mentioning the quantifies is to give examples of those which are well known and in use, not to encompass all possibilities. Indeed, [terms such as] "each and every" [*qāṭibatan*], "all" [*kāffatan*], "all" [*ṭurran*],[97] and the all-inclusive definite article [*lām al-istighrāq*], can validly be considered quantifiers of affirmative universal categorical [propositions] as the Shaykh [Ibn Sīnā] has indicated in his *al-Shifā'*.

Unquantified Propositions

(Or it is not like that), that is, it is not singular or quantified (which is called "unquantified" [*muhmala*]) due to the omission of a quantifier in it, (such

al-nasafiyya (Damascus: Wizārat al-Thaqāfa wa-l-Irshād al-Qawmī, 1974), 14. In a sense, the defense in both cases is that the classification scheme is sufficiently inclusive of all relevant parts, even if it excludes other parts that logically fit in the classification scheme though are not relevant to the matter at hand.

96. The examples given previously, i.e., "Zayd is a writer" and "Zayd is not a writer."

97. Found in H and A but not in T or K.

as our saying) in regard to the categorical proposition, ("Man is a writer,") and in regard to the hypothetical proposition, "If [*in*] or when [*idhā*] Zayd comes, then I will honor him." The unquantified proposition has the force of a particular proposition because the judgment upon the individual instances of a thing [i.e., the subject/*mawḍūʿ*] in general and the judgment on some of the individuals are mutually entailing in every respect.[98]

Likewise, the [hypothetical] judgment in some time in general and an unquantified [hypothetical] judgment [are mutually entailing].

Types of Conditional Propositions

(And the conditional hypothetical) is of two types because it is:

The entailing conditional proposition (*luzūmiyya*)

(a) (Either) the case that the judgment in it is built on entailment [*al-iqtiḍāʾ*], which is called entailing [*luzūmiyya*]—and that is either because the antecedent is the cause [*ʿilla*] of the consequent (such as our saying, "If the sun has risen, then day has come,") or because the consequent is the cause of the antecedent like its opposite, ["If the day has come, then the sun has risen,"] or because the two are each the effects of a single cause like "If the day has come, then the world is lighted."[99] Included in it [two effects from one cause] is [conceptual] correlation [*al-taḍāyuf*][100] between them such as "If Zayd is the father of ʿAmr, then ʿAmr is Zayd's son."[101]

98. "…are mutually entailing in existence or non-existence…." I have translated *ṭard* and *ʿaks* according to Qūl Aḥmad's concise comment "*thubūtan wa-ʿadaman*." Al-Fawzī further explains that *ṭard* is the logical inseparability in affirmation and *ʿaks* is the logical inseparability in negation. That is, whenever a judgment is actualized (*taḥaqqaqa*) for the individuals in general, then the judgment is actualized for some of them, and when it is actualized for some of them, it is actualized for the individuals in general…likewise, whenever the judgment is not actualized for some of them, it is not actualized for the individuals in general. In short, what can be said of some can be said of the group in general. Some Americans like football. Americans like football. See Qūl Aḥmad, *Fawāʾid*, 83; al-Fawzī, *Khulāṣa*, 86.
99. The singular cause of day and the world being lighted is the rising of the sun.
100. "*Al-taḍāyuf* (conceptual correlation) is two things being in such a way that you cannot conceive of one without the other such as 'father' and 'son'." Al-Fawzī, *Khulāṣa*, 87.
101. The singular cause of both the antecedent "Zayd is the father of ʿAmr" and the consequent "ʿAmr is the son of Zayd" is begetting (*tawallud*).

The coincidental conditional proposition (*ittifāqiyya*)

(b) (or) it is not like that [i.e., built on entailment]; rather, the judgment of conditionality is only due to coincidence [between the antecedent and consequent], which is called (coincidental [*ittifāqiyya*], such as our saying, "If man is rational then the donkey brays.") The judgment of conditionality is only by coincidence between the rationality of man and the braying of the donkey because they are created like that, not because there is between them any causal entailment.

Know that the meaning of the lack of entailment is the lack of knowledge of entailment by the one making the judgment [*ḥākim*], not its nonexistence in actual reality [*nafs al-amr*].[102]

Objection to the claim of coincidence and response

Thus the [following objection] does not apply:

> So long as they [man and donkey] both persist, their complete cause [i.e., Allah] persists, so the separation of one from the other is impossible,[103] for we did not intend by entailment [anything] except that [i.e., impossibility of separation].

102. If there is in actuality a causal relationship between the human's rationality and the donkey's braying but that relationship is not known to the one judging that their relationship is merely coincidental, the actual causal relationship has no bearing on the judgment that the proposition is a coincidental conditional proposition. If one learns, however, of an actual causal entailment relationship between rationality in humans and braying in donkeys, then the proposition "If man is rational, then the donkey brays" would be judged to be an entailing conditional proposition.

103. It would not be a valid objection to point out that both human and donkey exist as rational or braying, respectively, due a single cause, namely Allah. This would be an effort to prove that the example of human and donkey is not just coincidence but also entailment, since Allah's creating them is the single cause of the two effects of humans' being rational and donkeys' being brayers. Why is this not a valid objection? Because all that was intended by the lack of entailment found in the example of coincidental conditional proposition is that the one making the judgment of coincidence lacks knowledge of their inseparability or seperability, even if ultimately (Allah's will) or conventionally (laws of nature), the ancedent and consequent were inseperable (i.e., entailed). Entailment means inseparability of the antecedent and consequent, and coincidence means the one making the judgment lacks knowledge of inseperability. Al-Fawzī, *Khulāṣa*, 89.

The perpetual proposition is more general than the necessary proposition

And by this we have solved that [objection] which they posed regarding the perpetual [proposition's] [*al-dā'ima*] being more general than the necessary [proposition] [*al-ḍarūriyya*].

Types of Disjunctive Propositions

Division of disjunctive propositions

(The disjunctive hypothetical proposition) is of three types: strict [*ḥaqīqiyya*], mutually exclusive [*māniʿat al-jamʿ faqaṭ*], and totally exhaustive [*māniʿat al-khulū faqaṭ*]. That is because disunion [*al-ʿinād*][104] (is either):

The criterion of the categorization (*wajh al-ḥaṣr*)

- With regard to truth and falsehood together [simultaneously] which is called (strict, such as our saying: the [specific] number is either even or odd) for they cannot both be true [of a given number] nor can they both be false simultaneously. [Strict disjunctive hypothetical propositions] are both mutually exclusive and totally exhaustive simultaneously. It [that is, the previous example regarding the evenness or oddness of a given number] is [an example of] an affirmative [strict disjunctive hypothetical proposition]; the negative [strict disjunctive hypothetical] removes the disunion in truth and falsehood simultaneously such as our saying, "It is absolutely not the case that either this person is a writer or a Turk," for both can be true or false simultaneously [such as a Turkish writer [true] or an Arab architect [false].
- (Or it is) with regard only to truth in which case it is called (mutually exclusive [*māniʿat al-jamʿ faqaṭ*], such as our saying, "This thing is either a stone or a tree"), for they cannot both be true, though they might both be false in that it is a human. Its negation is removing the disunion with regard to truth alone, such as, "It is absolutely not the case that either this thing is not a tree or not a rock," for they might both be true but not both false, and if not, then it would be both stone and tree simultaneously.

104. Disunion (*ʿinād*) means the preclusion of "mutual joining" (*ʿadam al-ijtimāʿ*) and has been translated as "disunion" rather than "opposition" or the like so as to avoid confusion with the later discussion of the properties associated with propositions, namely opposition, contradiction, contrariety, etc.

- (Or it is) with regard only to falsehood, which is called (totally exhaustive [*māniʿat al-khulū faqaṭ*], such as our saying, "Zayd is either in the sea, or he is not drowning"), since being in the sea and not drowning could both be true but not both false, otherwise, he would be drowning on land.[105] Its negation is removing the disunion with regard to falsehood alone, such as, "It is absolutely not the case that Zayd is either not in the sea, or he is drowning," for not being in the sea and drowning may both be false [i.e., he is in the sea and not drowning] while they cannot both be true [i.e., he is not in the sea but drowning].

1. From this[106] it is known that for any [propositional] matter[107] regarding which the affirmative mutually exclusive [proposition] is true,[108] the negative [mutually exclusive proposition] is false,[109] while the negative totally exhaustive [proposition] is true.[110]
2. Furthermore, for any [propositional] matter regarding which the affirmative totally exhaustive [proposition] is true,[111] the negative [totally exhaustive proposition] is false,[112] while the negative mutually exclusive

105. "Sea" refers to any body of water in which a person might possibly be fully submerged, including a pond, pool, or river.
106. That is, from what was mentioned previously regarding mutually exclusive disjunctive propositions and totally exhaustive propositions—but not regarding strict disjunctive propositions (*ḥaqīqī*)—it is known that all [propositional] material wherein…These points that are derived from the previous discussion only pertain to the mutually exclusive and totally exhaustive, not the strict disjunctive. See al-Fawzī, *Khulāṣa*, 91.
107. Al-Fanārī uses the term "matter" (*mādda*), stating, "From this it is known that any [propositional] matter regarding which the affirmative mutually exclusive [proposition] is true…." In doing so, he is bringing our attention to the fact that the matter of the proposition dictates whether it is a strict disjunctive, mutually exclusive disjunctive, or totally exhaustive disjunctive, rather than the form alone. "This thing is either X or Y" gives us the general form of the disjunctive, but the possibility or impossibility of X and Y both being true or both being false depends on the meanings for which they were coined.
108. Such as either stone or tree. Al-Fawzī says: "such as our saying that a thing is either black or green." Al-Fawzī, *Khulāṣa*, 91.
109. Such as not stone and not tree. Al-Fawzī says: "such as our saying 'it is absolutely not the case that either this thing is black, or it is green', and that is because its affirmation being true entails the impossibility of joining its two parts, and its negation being true entails the possibility of joining its two parts…." Al-Fawzī, *Khulāṣa*, 91–2.
110. Such as not stone and not tree. Al-Fawzī says: "It is absolutely not the case that either this thing is not black, or it is not green…." Al-Fawzī, *Khulāṣa*, 92.
111. Such as Zayd being in the sea and not drowning. Al-Fawzī says: "Such as our saying, 'Zayd is either in the minaret, or he is not falling from a high place to a low place.'"
112. Such as not being in the sea and drowning. Al-Fawzī says: "Such as our saying, 'It is absolutely not the case that Zayd is either in the minaret or not falling from a high place to a low place.'" Al-Fawzī, *Khulāṣa*, 92.

[proposition] is true.[113] Likewise for negative [propositions] of either [kind].[114]

[Also, it is known] that for every pair of which it is true that the selfsame pair is mutually exclusive,[115] it is true that the contradictory opposites of the pair are totally exhaustive,[116] and vice versa.[117]

However, this assumes agreement in quality [*kayf*], that is, affirmation or negation. As for when there is difference in it [quality], a true proposition [*al-ṣādiq*] is one that negates that which is of the same type [i.e., whether mutually exclusive or totally exhaustive].[118]

Examples of tripartite strict disjunctive hypothetical propositions

(Disjunctive hypotheticals might possess) three or more (parts:[119] an example of three is our saying, "Numbers are either abundant, deficient, or perfect,")[120] or, "A word is either a noun, verb, or particle,"

113. Al-Fawzī says: "Such as our saying, 'It is absolutely not the case that Zayd is either not in the minaret, or he is not falling from the highest to lowest place….'" Al-Fawzī, *Khulāṣa*, 92.
114. Al-Fawzī says: "That is the negation of mutual exclusion and negation of total exhaustivity; every matter in which negating mutual exclusion is true, its affirmation is false, and affirmation of total exhaustivity is true. Every matter wherein negation of total exhaustivity is true, its affirmation is false, and affirmation of mutual exclusivity is true." Al-Fawzī, *Khulāṣa*, 92.
115. Blackness and whiteness are affirmed as mutually exclusive.
116. Al-Fawzī says: "Such as our saying, 'Either a thing is not black or not white.'" Al-Fawzī, *Khulāṣa*, 92.
117. That is, if total exhaustivity is true of each of the two things, so too is mutual exclusivity true of their contradictory opposites (*naqīḍayn*). Qūl Aḥmad, *Fawā'id*, 88.
118. Al-Fawzī says: "Meaning, the correct view here is negation of total exhaustivity between the two contradictory opposites such as non-black and non-white, with the truth of the affirmation of mutual exclusion between the two things themselves (*'aynayn*), such as black and white, and negation of total exhaustivity between the two contradictory opposites, such as Zayd's not being in the minaret and falling, with the truth of affirmation of total exhaustivity between the two things themselves (*'aynayn*), such as Zayd's being in the minaret and not falling. This is a kind of indication, and the extended treatment of the issue is in the longer commentaries. Al-Fawzī, *Khulāṣa*, 92–3.
119. Parts (*ajzā'*) in its intended lexical meaning, rather than technical, and thereby implies three or more. The plural in logic is two or more, but in Arabic grammar it is three or more. There is also some discussion in the commentaries about different recensions of this phrase (*dhawāt ajzā'* vs. *dhāt ajzā'*). Qūl Aḥmad prefers the latter. Al-Fawzī discusses both without preferring one over the other. Qūl Aḥmad, *Fawā'id*, 89; al-Fawzī, *Khulāṣa*, 93.
120. What is intended here are rational numbers (*al-'adad al-munṭiq*), not numbers in general (*muṭlaq*) nor irrational numbers. That is, these three terms (abundeant, deficient, perfect) are technical terms in mathematics, not in their general lexical meaning as al-Fanārī will soon explain.

Examples of strict disjunctive hypothetical propositions with more than three parts

and an example of more [than three] is our saying, "An element is either fire, air, water, or earth,"[121] or [our saying], "A universal is either a species, genus, differentia, special accident, or general accident."[122]

Clarification of the numerical examples

The example given in the text [*matn*] does not mean that one number is correlated with another as is often thought,[123] indeed, 'abundant' [*zā'id*, lit. "greater"], 'deficient' [*nāqiṣ*, lit. "less"], and 'perfect' [*musāwī*, lit. "equal"] are not hereby intended in their lexical senses; rather, what is intended is their technical meanings. Every number where the sum of its nine[124] proper divisors exceeds it [i.e., exceeds that number] is called abundant [*zā'id*], like [the number] twelve.[125] [Every number where the sum of its proper divisors] is less [than it] is called deficient[*nāqiṣ*], such as four.[126] [Every number where the sum of its proper divisors] is equal [to it] is called perfect, such as six.[127] This concerns the strict disjunctive hypothetical [*al-munfaṣila al-ḥaqīqiyya*].

Totally exhaustive and mutually exclusive propositions with more than two parts

As for the totally exhaustive disjunctive [*māni'at al-khulū*] comprised of more than two [disjuncts], then it is such as: "Either this thing is not a rock, or it

121. This being an example of four parts.
122. This being an example of five parts.
123. That is, al-Abharī was not intending the example of 5 being greater than 4, or 10 being less than 11, or 12 being equal to 12.
124. The nine fractions are 1/2, 1/3, 1/4, 1/5, 1/6, 1/7, 1/8, 1/9, 1/10. Both al-Fawzī and Qūl Aḥmad discuss this qualification, al-Fawzī deferentially reminding the reader that al-Fanārī was the teacher (*ustādh*) of both him and Qūl Aḥmad. There appears to have been some discussion about this statement and al-Fawzī feels obligated to clear al-Fanārī from the apparent critiques and objections. "Its meaning is 'from the fractions of the genus of numbers, not from the fractions of every number'." In other words, it is not that every number can be divided into all nine fractions.
125. Half of twelve is six, one-third of twelve is four, one-fourth of twelve is three, one-sixth of twelve is two: 6+4+3+2=15. Fifteen is greater than twelve, and therefore twelve is in the category of rational numbers callled abundant (*zā'id*). Qūl Aḥmad, *Ḥāshiyat Qūl Aḥmad*, 347.
126. Half of four is two, and a fourth of four is 1: 2+1 =3. Three is less than four. Therefore, four is deficient (*nāqiṣ*).
127. Half of six is three, a third of six is two, and a sixth of six is one: 3+2+1=6. Therefore, six is called "perfect" in the technical terminology of mathematics.

is not a tree, or it is not an animal." As for the mutually exclusive disjunctive [*māniʿat al-jamʿ*], it is such as our saying: "Either this thing is a tree, or a rock, or an animal."

Objections and Responses

First objection

So, if you said:

Nothing of disjunctive hypotheticals is composed of more than two parts because disjunction is one single nexus [*nisba*] and the single nexus is not conceivable except between two parts; it is necessary that the nexus between multiple matters is not singular; rather, it is multiple.

Al-Fanārī's response

Then I would say:

However, what is intended by disjunctive hypotheticals' being composed of more than two parts is their being composed with regard to their apparent meaning, not with regard to reality.[128] Otherwise, the strict disjunction in the aforementioned examples is in reality between a number's being either abundant or not so, then, assuming it is not abundant, between its being either deficient or perfect.[129]

Second objection

If you were to say:

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128. "It is as though he said, 'Perhaps the disjunctives are in apparent form possessing three or more parts, even though that is not the case in reality (*nafs al-amr*). With that, your objection does not stand (*fa-lā yaridu iʿtirāḍuka ʿalayhi*).'" Al-Fawzī, *Khulāṣa*, 96.

129. That is, if we do not concede that the author intended that the example ("Either a number is abundant, deficient, or perfect") was only with regard to its outward form of having three parts, then were we to interpret this literally, it would mean that the strict disjunctive in this example, when interpreted literally, clarifies that the number is either abundant or it is not. What is implied in "It is not" is that if not, then it is either deficient or perfect. Al-Fawzī says: "It is as though it was said, '(1) A number is either abundant or not abundant; (2) a non-abundant number is either deficient or perfect.' Our saying, '(1) A number is either abundant or not abundant,' is a disjunctive proposition, and our saying, '(2) A non-abundant number is either deficient or perfect,' is another disjunctive. When the second disjunctive is born of the second part of the first disjunctive, that second part of the first disjunctive is occluded. Then the second disjunctive is set up in the place of the second part of the first disjunctive…." Al-Fawzī, *Khulāṣa*, 96.

What is the reason for their judgment that the strict disjunctive cannot be composed of more than two parts, while the totally exhaustive and mutually exclusive can be [thus] composed?

Al-Fanārī's response

I would say:

The reason is that the strict disjunctive—if you intend by it strict disjunction [*al-infiṣāl al-ḥaqīqī*] between every pair[130] from its three parts—can hardly be true because: if the first from the three parts, for example, were established, then if the second is established as well, strict disjunction between the two would be negated. If [the second] is not established, then if the third is established as true, then there does not exist between it and the first any disjunction; if it [the third part] is not established,[131] then there is not any disjunction between it and the second.[132]

Tripartite mutually exclusive and totally exhaustive propositions

As for the two other disjunctive propositions [mutually exclusive and totally exhaustive], they are affirmed as valid even if total exclusion or total exhaustivity were intended between every pair among the [three] parts in the two previously mentioned examples. This [is the difference between strict disjunction and the other two, that is, total exclusion and total exhaustivity].

The truth is that if the intended meaning of disjunction is one disjunction, then it is not established except between two parts; if it is unconditioned[133] disjunction, then it is established between two or more parts in any of the three types.[134]

130. What is intended here is that if one affirms disjunction between part 1 and part 2, and part 1 and part 3, and part 2 and part 3, then you cannot have a strict disjunction (*al-infiṣāl al-ḥaqīqī*), as affirming any combination to be true would lead to a union of opposites, and denying any combination would lead to a mutual absence of contradictory opposites (*irtifāʿ al-naqīḍayn*), as discussed in what follows.
131. If the third part is not established along with the second part also not being established, then it leads to the mutual absence of contradictory opposites (*irtifāʿ al-naqīḍayn*).
132. If there is strict disjunction between each pair combined from the three parts (1 and 2, 1 and 3, 2 and 3), then that means total exhaustivity cannot be affirmed of any of its parts. In this case, part 2 and 3 cannot both be false. Similarly, they cannot both be true.
133. That is, disjunction without any condition of being singular or multiple.
134. (1) Strict Disjunction, (2) Mutual Exclusion, and (3) Total Exhuastivity.

Contradiction of Propositions

When he finished [the subject] of propositions, he began [the subject of] its judgments in an abridged manner, restricting [himself] to unconditioned propositions[135] [*muṭlaqāt*], as suits the nature[136] of the book.

Definition of contradiction

Then he said: (Contradiction [*al-tanāquḍ*]), that is to say, from among the totality of properties regarding propositions is [the subject of] *Contradiction.*

Excluded by "propositions"

(It is the difference [*ikhtilāf*] between two propositions)—this excludes the difference between two simple terms such as 'Zayd' and "Amr' as well as between a simple term and a proposition[137]—

Excluded by "in affirmation or negation"

(in affirmation or negation), which excludes their [the propositions'] difference in being categorical or hypothetical as well as their difference in being[138]

135. Unconditioned propositions are contrasted with modal propositions. Unconditioned propositions have no modality specified for them—such as necessary, possible, impossible—whereas modal propositions [*muwajjaha*] have a modality specified.
136. The *da'b* of the book, meaning the manner in which the author has directed his efforts in composing the book. The author's main concern is to make known that which is necessary to know of the subject, to ease the reader's comprehension through precise explanation, and to leave whatever exceeds necessary knowledge, as can be found in the longer works on logic. Al-Fawzī, *Khulāṣa*, 98.
137. Such as 'Bakr' and "Khālid is standing." Al-Fawzī, *Khulāṣa*, 99.
138. That is, contradiction as a technical term does not apply to a difference in scope such as "The blind person is sitting" verses "The non-seeing person is sitting" wherein the first proposition is non-privative (*muḥaṣṣala*) in that it lacks a negative particle, and the second proposition is a privative proposition. Ljubovic translates *al-'udūl wa-l-taḥṣīl* as "scope." Amir Ljubovic, *The Works in Logic by Bosniac Authors in Arabic* (Boston: Brill, 2008), 42.

privative [*ʿudūl*][139] or non-privative [*taḥṣīl*][140] and [also excludes] other than that.[141] Indeed, the contradictory opposite of a thing is its negation,[142] not

139. A privative term is a single term which contains a negative particle (or privative prefix), such as 'non-writer'. If the negative particle is part of either the subject or the predicate, the proposition is called a privative proposition (*qaḍiyya maʿdūla*). If the negative particle is a part of each of them, it is called a proposition of privative extremes, such as "The non-living is non-knowing." If it is a part of the subject, then it is called subject-privative, such as "The non-living is inanimate (*jamād*)." If it is a part of the predicate, then it is called predicate-privative, such as "The inanimate is non-knowing." Summary translation from Qarah Khalīl, *Ḥāshiyat Qūl Aḥmad*, 354.
Other translations for *maʿdūla* include "complement" for the privative proposition and "non-complement" for the non-privative (*muḥaṣṣala*). "Complement" may refer to the fact that the term is the opposite of the original term, not just that it is blended with a negative particle. If so, then a complement would be the opposite of the original term expressed privatively. "Metathetic" and "modified" are also used for the privative proposition. The use of "privative" here retains something of the meaning of the negative particle, while "modified" speaks to the the fact that the term was modified through the addition of the negative particle.

140. "Non-privation" (*taḥṣīl*) refers to a term which does not contain a negative particle, such as Zayd, tree, stone, etc. Propositions whose subjects and predicates lack any negative particle are called non-privative (*muḥaṣṣala*) propositions. Also see Qarah Khalīl, *Ḥāshiyat Qūl Aḥmad*, 354.

141. Other exclusions include conditionality and disjunction (*al-ittiṣāl wa-l-infiṣāl*), entailment and coincidence (*al-luzūm wa-l-ittifāq*). Al-Fawzī, *Khulāṣa*, 99.

142. In its technical usage, the term "contradiction" applies to propositions not singular terms. So, the 'contradiction' of something—such as writer—which has been predicated of Zayd in the statement "Zayd is a writer" is to negate that predication through its contradictory proposition "Zayd is not a writer." Some have alleged that a thing, such as 'writer', and its privation, that is, 'non-writer', are also contradictory, thereby extending the technical meaning to singular terms. However, the proof against this is not by merely insisting that contradiction only applies to propositions; rather, it is to show that the relationship between a thing and its privation are mutually exclusive, but they are not totally exhaustive when not predicated of any subject. That is, the terms 'writer' and 'non-writer' can both be suspended (*irtifāʿ*) if not predicated of any subject, but they remain mutually exclusive concepts. In contrast, however, contradiction entails that two meanings are mutually prevented of each other in essence with regard to union or suspension. That is, the two meanings cannot be joined, nor can they both be absent; they are both mutually exclusive and totally exhaustive. So, a meaning and its privation are mutually exclusive but not totally exhaustive, whereas contradictory opposites are both mutually exclusive and totally exhaustive. Since privative relations only meet one of the two conditions of contradiction, they do not fall under the category of contradiction. Qūl Aḥmad, *Ḥāshiyat Qūl Aḥmad*, 355.
However, one might metaphorically call a singular term and its privation "contradictories." See Qarah Khalīl, *Ḥāshiyat Qūl Aḥmad*, 355.
"(Indeed, the contradictory opposite of an) established (thing is its negation), that is, the negation of that thing. For example, the contradictory opposite of 'writing', which was established for Zayd in our statement 'Zayd is a writer' is the negation of that 'writing' from

its privation,[143] because a thing and its privation could both be suspended [*yartafiʿān*] when[144] not being affirmed.[145]

With that [with their being mutually suspended when not affirmed of a subject], it is said: "There is no contradiction with regard to simple terms[146] because when considered together[147] with the judgment [*al-ḥukm*], they are not simple terms,[148] and without it [the judgment][149] they are neither in negation

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Zayd such that we say, 'Zayd is not a writer' (not its privation), that is, not the privation of that thing, like 'the non-writer'." Al-Fawzī, *Khulāṣa*, 99.

143. As mentioned previously, the relationship between 'writer' and 'non-writer' is different from affirming 'writer' for Zayd and negating 'writer' for Zayd. The key here is that we are not comparing the concepts of 'writer' and 'non-writer', we are comparing the affirmation of the ascription of 'writer' to Zayd with the negation of that ascription of 'writer' to Zayd. Affirmation and negation are attributes of the nexus (*nisba*) *not* individual terms, and as mentioned in the definition, it is the difference between propositions regarding affirmation and negation that is considered in contradiction.
144. *Li-ʿadam al-ithbāt*. "*Li-*" is *lām waqtiyya* meaning "when" (*ʿinda*). Ṣāliḥ al-Ghursī, "Lecture 26," *Tasjīlāt*.
145. What it means for a thing and its privation to not be affirmed is that neither is attributed to a subject. In themselves, 'rock' and 'non-rock' are not in contradiction because they are simple (*mufrad*). The following possibilities can be considered:
    (1) "Humans are not rocks." "Non-humans are not rocks." This is not a case of contradiction because the subject and predicate must remain the same, and the nexus is affirmed or negated.
    (2) "Humans are rocks." "Humans are non-rocks." This is also not a case of contradiction according to the technical definition, though one might metaphorically consider them contradictory. See Qarah Khalīl, *Ḥāshiyat Qūl Aḥmad*, 355.
    (3) "Humans are rocks." "Humans are not rocks." This is a case of contradiction.
146. Such as 'human' and 'non-human', or 'square' and 'circle'. There is no doubt that 'human' and 'non-human' have contradictory meanings, but this contradiction is not according to the technical definition of 'contradiction' as a technical term in the science of logic. Rather, one might say that the contradiction between two singular terms is metaphorically called contradiction with respect to the technical definition of 'contradiction' in the science of logic, or lexically called contradiction when used outside the domain of the technical terminology of logic, such as in daily conversation.
147. "(Because they) that is, simple terms while they are united (*muqāranatan*) (with respect to the judgment) upon them [i.e., the simple terms] or by them, they [in this context] are possessors of a nexus, and as such they are propositions." Al-Fawzī, *Khulāṣa*, 99.
148. Simple terms cease to be simple terms when considered in combination with the rest of the declarative proposition which necessarily contains a judgment. 'Writer' ceases to be a simple term when considered with respect to the judgment in the proposition "Zayd is a writer."
149. Al-Fawzī reminds the reader that a simple term either becomes the object of the judgment in consideration of the judgment being upon it (*bi-iʿtibār al-ḥukm ʿalayhi*) or the meaning predicated of the object of the judgment in consideration of the judgment being through it (*bi-iʿtibār al-ḥukm bihi*). Al-Fawzī, *Khulāṣa*, 99.

nor affirmation."[150]

([Contradiction is the difference between two propositions in affirmation or negation] such that) that difference (necessitates in itself [*li-dhātihi*] that one of them is true and the other is false). He excludes thereby two things wherein the disagreement in affirmation and negation does not necessitate that,[151] such as "Every animal is a human" and "No animal is a human," or necessitates [that if one is correct, then the other is false] but not in and of itself, rather by a means [*bi-wāsiṭatin*], such as "Zayd is a human" and "Zayd is not rational." Indeed, the necessitation by the difference in that [i.e., affirmation and negation] of the truth of one of them and the falsity of the other is by means of the coextension [*musāwāh*] of the two predicates, which necessitates that the affirmation of one effectively affirms the other, and the negation of one of them effectively negates the other.

Examples of contradiction

([Contradiction is the difference between two propositions in affirmation or negation such that [that difference] necessitates in and of itself that one of them is true and the other is false] such as "Zayd is a writer" and "Zayd is not a writer"). This is an example of contradiction between two singular propositions.

Eight conditions for realization of contradiction

(That is not realized), that is, the [previously] described[152] difference [is not realized] in singular propositions [*al-makhṣūṣataʏn*] (except after their agreement), that is, [the agreement of] the two propositions in eight unities:

1. ([Unity] of subject) as opposed to "Zayd is standing" and "ʿAmr is not standing."
2. (and predicate) as opposed to "Zayd is standing" and "Zayd is not sitting."
3. (and time) as opposed to "Zayd is standing," that is, at night, and "Zayd

150. If there is no judgment between two terms, there can be no negation or affirmation, since negation and affirmation are with regard to the nexus; if there is no nexus, there is no negation or affirmation.

151. That is, by including this stipulation, al-Abharī excludes two things wherein the disagreement in affirmation and negation does not necessitate that one is true and the other is false.

152. The difference in affirmation and negation as previously described as being such that the difference between those affirmative and negative propositions necessitates in and of itself that one of them is true and the other is false.

is not standing," that is, in the day.

4. (and place) as opposed to "Zayd is standing," that is, in the mosque, and "Zayd is not standing," that is, in the market.
5. (and relation) as opposed to "Zayd is a father," that is, to ʿAmr, and "Zayd is not a father," that is, to Bakr.
6. (and potentiality and actuality) as opposed to "The wine in the bottle is intoxicating," that is, potentially, and "The wine in the bottle is not intoxicating," that is, in actuality.[153]
7. (and whole and part) as opposed to "The African [*zanjī*] is black," that is, some of him, and the African is not black," that is, all of him.[154]
8. (and condition [*al-sharṭ*]) as opposed to "The physical body dilates the eye," that is, on condition of its [the physical body's] whiteness, and "[The physical body] does not dilate the eye," that is, on condition that it is black.[155]

The sound opinion[156] is that what is considered with regard to the realization of contradiction is the unity of the judgment-nexus [*waḥdat al-nisba al-ḥukmiyya*] such that affirmation and negation apply to one thing. Indeed, its[157] unity entails these [eight] unities, and the non-unity of any of them entails

153. The wine in this bottle is potentially intoxicating, in that it has elements that would intoxicate a person if it were consumed. However, at this moment, it remains in the bottle, and as such is merely potentially intoxicating. As opposed to the wine in this bottle is actually not intoxicating the person who is currently drinking from this bottle, because it has turned to vinegar or did not ferment sufficiently.
154. This African man's skin is black, while his hair is gray.
155. The example given by al-Fanārī appears to draw from Greek theories of color.
Plato says: "Wherefore, we ought to term white that which dilates the visual ray, and the opposite of this is black." Timaeus, 67e.
See Aristotle, *Minor Works: On Colours. On Things Heard. Physiognomics. On Plants. On Marvellous Things Heard. Mechanical Problems. On Indivisible Lines. The Situations and Names of Winds. On Melissus, Xenophanes, Gorgias*, trans. W. S. Hett. Loeb Classical Library 307 (Cambridge, MA: Harvard University Press, 1936), 5.
156. This view is attributed to al-Fārābī. There are three opinions, that of the early logicians (*al-mutaqaddimūn*), that of the later logicians (*al-muta'akhkhirūn*), and al-Fārābī's, which is the view that al-Fanārī considers correct. Al-Abharī appears to have adopted the opinion of the early logicians, which seems to limit the unities considered in contradiction to only eight. The later logicians held that only the unity of subject and predicate is considered, since the remainder of the unities are subsumed under them. The third opinion, al-Fārābī's view, which al-Fanārī supports, appears to have been adopted by the verifiers (*al-muḥaqqiqūn*), according to al-Ẓāhirī (ed.), *Ḥāshiyat Qūl Aḥmad*, 366n.1. See al-Fawzī, *Khulāṣa*, 103.
157. Indeed, the unity of the judgment-nexus entails….

the non-unity of the judgment-nexus. If not, then there is no comprehensive inclusion [*ḥaṣr*][158] in what he [i.e., al-Abharī] mentioned due to the suspension of contradiction[159] by means of:

1. difference in instrument [*ikhtilāf al-āla*], such as "Zayd is a writer," that is, with a Wāsiṭī pen,[160] [and] "Zayd is not a writer," that is, with a Turkish pen.
2. and [difference in] cause, such as "The carpenter is working," that is, for the sultan, [and] "The carpenter is not working," that is, for someone else.
3. and [difference in] object, such as "Zayd hits," that is, [he hits] ʿAmr, [and] "Zayd hits," that is, [he hits] Bakr.
4. and [difference in] specifier, such as "I have twenty," that is, dirhams, [and] "I do not have twenty," that is, dinars

…among others.

With this amount is known the contradiction of singular propositions.

Contradiction of quantified propositions

As for [contradiction with regard to] quantified propositions [*al-maḥṣūrāt*], the contradiction of universal affirmation is particular negation, and the contradiction of universal negation is particular affirmation, [as is known] immediately. Thus, he said: (The contradictory opposite of the universal affirmative [proposition] is nothing but the particular negative [proposition], and the contradictory opposite of the universal negative [proposition] is nothing but the particular affirmative [proposition], such as our saying "Every human is an animal" and "Some human is not an animal" or "No human is an animal" and "Some human is an animal").

158. That is, the unities would not be limited to eight.
159. The suspension of contradiction (*irtifāʿ al-tanāquḍ*) means the lack of contradiction. If the unities necessary for contradiction to be realized were limited to the eight previously mentioned, then two propositions that differ in instrument, cause, object, or specifier could still be considered contradictory; but that is not the case since we know that these differences vitiate contradiction. It would entail that "Zayd is a writer [with a Turkish pen]" and "Zayd is not a writer [with a Wāsiṭī pen]" could be contradictory, when in reality, this is not a contradiction since the judgment-nexus is not applied to the same thing. The phrases "…writer with a Turkish pen" and "…writer with a Wāsiṭi pen" are different predicates, entailing that the judgment-nexus is not being applied to the same thing.
160. A *qalam wāsiṭī* is a pen from the city al-Wāsiṭī which was built by al-Ḥajjāj b. Yūsuf. Al-Fawzī, *Khulāṣa*, 103.

Objection regarding the 'unity of subject' and response

One should not say [as an objection]: "There is no unity of subject in these two [quantified propositions]," because what is intended by 'subject' in this inquiry is 'the subject as mentioned' [*al-mawḍūʿ fī al-dhikr*], and it is unified.[161]

(So, contradiction is not realized between quantified [propositions] except after their being different with regard to quantity [*al-kammiyya*], since two universal propositions could both be false—such as our saying "Every human is a writer" and "No human is a writer"—and two particular propositions might be true, such as our saying "Some humans are writers" and "Some humans are not writers.")

Know that the unquantified proposition [*al-muhmala*] is effectively a particular proposition, so the judgment of the former is the same as the judgment of the latter.[162]

Conversion of Propositions (*al-ʿaks*)

(It is that [the subject] be made [the predicate]): [*yuṣayyaru*] has a *shadda* on the *yā'*[163] because conversion is applied to two meanings: (1) to the proposi-

161. The subject as mentioned is unified in each proposition, the original and the contradiction.

162. That is, the unquantified proposition, such as "Cars are worldly possessions" is effectively treated like the particular proposition "Some cars are worldly possessions" in the context of the chapter on contradiction. The unquantified proposition carries the same properties or judgmental relations as the particular proposition. So, the unquantified proposition "Cars are worldly possessions" is contradicted by "No cars are worldly possessions," just as the particular proposition "Some cars are worldly possessions" would be contradicted by "No cars are worldly possessions."

163. It is *yuṣayyiru* (to make something become something) rather than *yaṣīru* (to become something) because the latter verb without the *shadda* has the meaning of "to become." The former (*yuṣayyiru*) is a transitive verb that entails the active alteration of the proposition by the one performing the conversion. *ʿAks* has two meanings, that of the act of conversion and that of the resultant converted proposition, or converse. When one performs the act of conversion (*ʿaks*) on the proposition "No cat is a dog," the converse (*ʿaks*) "No dog is a cat" is produced. If one were to define *ʿaks* as "the subject *becomes* the predicate and the predicate *becomes* the subject," one would have added a third meaning, which is that *ʿaks* is a type of *becoming,* a change in state of the proposition, rather than an act by the converter or a result of that act, namely the converse proposition. So, al-Fanārī tells us that al-Abharī intended the transitive form or "Form II" of the verb, indicated by the *shadda* on the *yā'*; furthermore, that in using this verb to define conversion, we understand therefrom that he is defining the act of conversion (*ʿaks* as a verbal noun [*maṣdar*]), not the converse itself.

tion obtained from the aforementioned substitution[164] and (2) to the actual conversion,[165] for were it not given a *shadda* a third meaning would come about.[166]

That is,[167] (the subject)—as mentioned [*fī al-dhikr*][168] or that which stands in its place in the hypothetical proposition (*al-sharṭiyya*), that is, the antecedent [*muqaddam*]—is made (the predicate) or that which stands in its place in hypothetical propositions, that is the consequent [*tālī*].

[It is that the subject be made the predicate] (and the predicate [be made] the subject while the negation or affirmation remains in its state,[169] likewise truth or falsehood in its state).[170]

164. That is, the resultant proposition, which is the result of the act of converting the original subject to the predicate.
165. The actual act of converting the subject to the predicate and the predicate to the subject. This is its meaning as a gerund or verbal noun (*al-ma'nā al-maṣdārī*).
166. The third meaning which would be produced from *ṣād-yā'-rā'* in the first form would be "to become." In that sense, it would read: "Conversion: It is that the subject become the predicate." What I gather is that the transitivity of the verbal meaning (*al-ma'nā al-maṣdarī*) and the meaning of being a result of a transitive verb (*al-ḥāṣil min al-maṣdar*) are both lost in this reading. However, commentators point out that this third meaning was never put forth in logic, and thus this point is perhaps superfluous. See Qūl Aḥmad, *Fawā'id*, 102; al-Fawzī, *Khulāṣa*, 106.
167. This begins al-Fanārī's explanation of al-Abharī's statement, "It is that the subject be made the predicate," not a further explanation of the third meaning that would come about were the verb read as "to have become."
168. That is, the term itself as mentioned in the proposition with its intended meaning rather than particular individuals to which it applies. In the sentence "All humans are animals," the grammatical subject is 'humans', which applies to each individual human being. Al-Fanārī is distinguishing between the grammatical subject and the individuals which that word signifies.

    Also, he intends the subject term and predicate term themselves, without any quantifiers like "every" or "some." This distinction is important because, grammatically, one might say that the subject of the above proposition is "All humans," so its converse would read "Animals are all humans" rather than "Some animals are humans."
169. That is, the converse proposition must retain the affirmative or negative quality of the original proposition. For example, "Every human is rational" is converted to "Some rational (beings) are human." The affirmative quality has been retained. A proposition like "No rational beings are human" or "Some rational beings are not human" does not follow rationally from the original proposition.
170. While al-Abharī's phrasing and word choice appears to indicate that the converted proposition also maintains truth or falsehood of the original proposition, that is not always the case when the original proposition is false, as discussed in what follows.

Two apologetic interpretations

1. As for the former [i.e., affirmation and negation], it is because our saying, "Every human is rational," does not entail negation [*lā yalzamuhu al-salb*] at all.[171] Our saying, "No human is a stone," does not entail affirmation at all.
2. As for the latter [i.e., truth and falsehood], its meaning[172] is [either]:
   a. that if the original [statement] is true, its converse will also be true. If the converse is false, then the original was false as is the nature of entailment [*al-luzūm*].[173] [The meaning of "…likewise truth or

171. It does not accept negation universally nor particularly. You could not exchange the subject and predicate and also negate one or both. "Every human is rational" does not in any way entail "No rational (being) is human" or "Some rational (being) is not human." Even if the latter statement is true with regard to jinn, angels, or some yet to be discovered space alien, that some rational beings are not human does not rationally follow from "Every human is rational."

172. Due to the incorrect implications of al-Abharī's expression "…likewise truth and falsehood in their states," al-Fanārī gives two possible interpretations of this text in order to save it from the accusation of being from the forgetfulness of the author. The first apologetic interpretation requires that we read "and falsehood…" as referring specifically to the example of the falsehood of a converted entailing conditional proposition, and not to the falsehood of an original categorical or hypothetical proposition, nor the falsehood of the conversion of a categorical proposition.

    The second apologetic interpretation that al-Fanārī offers is that we read "and falsehood…" as referring to the combined category of 'truth and falsehood' where this expression of this combined category is intended to mean only one of its parts, namely 'truth'. The use of a whole but intending a part would be like using the term 'house' to signify the meaning of 'roof' or 'four walls', but not its full meaning of 'four walls and a roof'.

173. Al-Fanārī gives a possible interpretation of al-Abharī's apparently incorrect expression, namely "…likewise truth and falsehood in their states." Al-Fanārī offers that what was intended by this was: If the original is true, the conversion will be true. If the conversion is false, the original must also be false. However, if the original is false, it does not entail that the conversion will be false.

    Qarah Khalīl adds: What is obtained from the commentator's words is that the original proposition and the converted proposition have the status of an entailing conditional hypothetical proposition, for affirming the antecedent leads to the consequent itself, and negating the consequent leads to the opposite of the antecedent.

    Al-Fanārī signals that the claim "If the converse is false, then the original was false" is with regard to entailing conditional hypothetical propositions by saying "as is the nature of entailment (*luzūm*)" or "as is the nature of the entailer (*malzūm*)," depending on the manuscript the glossators were working from.

    The upshot is that whatever was affirmative in the original will remain affirmative after conversion, and whatever was negative in the original will remain negative after conversion. Likewise, whatever was true before conversion will remain true after conversion, but whatever was false before conversion will remain false after conversion.

    H, A, T have *luzūm*; K has *malzūm*.

falsehood in its state"] is not that if the original was false, then the converse will be false, as has been understood [by some].[174]

b. Or we say: Its meaning[175] is that the combination[176] of truth and falsehood is in its state, not that each of them[177] is in its state. What is intended by "the combination being in its state" is "truth being in its state," specifically applying the expression [of al-Abharī] to [only] one of the two possibilities [truth or falsehood].[178]

Rules of Conversion with Regard to Quantified Propositions (Universality and Particularity)

If you know the essential meaning [*mafhūm*] of conversion, then we say:

Affirmative universal converts to affirmative particular

(Universal affirmation is not converted to a universal) due to the possibility of the predicate being more general than the subject and the impermissibility of applying the more specific to all of the more general particulars.[179] (since our saying, "Every human is an animal," can be true while) our saying, ("Every animal is a human," is not true. Rather it is converted particularly [not universally]) due to (a) the necessary overlap [*mulāqāh*][180] of the two terms—subject

174. Some commentators understood that al-Abharī meant that if the original was false then the conversion would be false, but this is not valid. See al-Fawzī, *Khulāṣa*, 108.
175. That is, that truth and falsehood remain in the state of the original proposition.
176. Perhaps we might interpretively read this as "…that the combined category of truth and falsehood…."
177. Not that both truth and falsehood would remain in a conversion. As mentioned previously, truth remains in the conversion if the original is true, and falsehood remains in the original conditional hypothetical proposition if the conversion is false. However, falsehood does not necessarily remain if the original is false, as the conversion might still be true.
178. What is intended by "the combination being in its state" is that truth remains in the converse of an affirmative proposition, but it does not necessarily remain in the converse of a negative proposition. This is done by applying 'truth or falsehood' as the name of a combined category to only one of the two terms contained therein, namely, truth.
179. So, "Every human is an animal" is converted to "Some animal is human" since affirmation (*ījāb*) must be maintained in the conversion, and the more specific (human) cannot be applied to all of the more general (animal).
180. What is necessary is that each of the terms—the subject and the predicate—be both applied to a singular entity affirmatively, regardless of whether that affirmation be universal or particular (that is, "All X is Y" or "Some X is Y"). That is, a single entity, such as a particular individual human, such as Zayd, is described both as a human and an animal. Al-Fawzī, *Khulāṣa*, 109. *Mulāqāh* lexically yields the meaning of mutual connection. Al-Fawzī explains

and predicate—in the affirmative [proposition], whether universal or particular and (b), by means of the overlap [al-*mulāqāh*],[181] particular [affirmation] is true for both extremes[182] (because, if we say, "Every human is an animal," then it makes true our saying,[183] "Some animal is a human"; we find) that the subject[184] is (a specific thing attributed with 'human' and 'animal', so some animal is human.[185]

Affirmative particular converts to affirmative particular

The affirmative particular, too, is converted particularly with this proof [*ḥujja*]) as we indicated.[186]

Negative universal converts to negative universal

(The negative universal is converted as a negative universal, and that is clear in and of itself). Let us add to it an explanation. We say: If it is true that the predicate is negated from every individual instance of the subject, then it is true that the subject is negated from every instance of the predicate, since if the subject[187] were established for a particular instance of the predicate,[188] the

mulāqāh as *taṣāduq ʿunwānay al-mawḍūʿ wa-l-maḥmūl ʿala dhāt wāḥid,* which I render as "the mutual application of the terms of the subject and predicate to a single entity." To join between the lexical and the exegetical meaning provided by al-Fawzī, I understand from this that the subject and predicate are necessarily linked when affirmed universally or even just one entity such that when converted, that mutual connection and application remains.

181. By means of the mutual application of the terms of the subject and predicate to a single entity, the subject and predicate of both the original and conversion are affirmative and true.
182. According to Qūl Aḥmad, the two extremes here are the two sides of the conversion process: the original proposition and its converse. Qūl Aḥmad, *Fawāʾid*, 104. According to Qarah Khalīl, the word *ṭarafayn* should be read as referring to the subject and predicate. In other words, in the case described, the subject and predicate of the original proposition, when considered as subjects of particular affirmative propositions, will both be true; effectively this also means that both the original proposition and the converse will be true. Qarah Khalīl, *Ḥāshiyat Qūl Aḥmad*, 381.
183. "Our saying" is in H but omitted by T. K and A omit the entire phrase "it makes true our saying, 'Some animal is a human.'"
184. The phrase "the subject" is in H. K instead has *hunāka* ("that there is"); T omits the phrase and attributes the entire statement beginning with "so we find…" to al-Abharī.
185. This is al-Abharī's expression of the point that the universal affirmative is converted to the particular affirmative, as al-Fanārī indicated in (a) above.
186. This is al-Abharī's expression of the point that the particular affirmative is converted to the particular affirmative, as al-Fanārī indicated in (b) above.
187. If the subject of the original proposition, which becomes the predicate in the converted proposition, were established…. Al-Fawzī, *Khulāṣa*, 110.
188. This predicate of the original proposition becomes the subject in the converted proposition.

overlap [*mulāqāh*] between the subject and predicate regarding that instance [of the predicate] would be obtained, while it has already been said that overlap validates [*tuṣaḥḥiḥu*] the affirmative particular [*mūjiba juz'iyya*] from the two extremes, and the veracity of the affirmative particular from the two extremes negates [*yunāfī*] the negative universal from one of them.[189] (Indeed, if our saying that "No human is a stone" is true, then it is true that "No stone is a human") and if not,[190] then "Some stone is human" and "Some human is stone." This is an absurd contradiction [*khulf*].[191] Or we combine it[192] [*naḍummuhā*] as a minor premise [*ṣughrā*] with our saying, "No human is a stone," such that it produces "Some stone is not a stone"; this is an absurd contradiction.

Al-Fawzī, *Khulāṣa*, 110.

189. "That is, from one of the two extremes, meaning: 'Some white things are black' and 'Some black things are white' contradicts our saying, 'No white thing is black' and 'No black thing is white.'" Al-Fawzī, *Khulāṣa*, 110.

190. That is, if the conversion "No stone is human" is not true, then "Some stone is human" and "Some human is stone" is true. But this contradicts the originally hypothesized example "No human is stone."

191. "That is, if this conversion—which is the negative universal—is not true, then its contradictory opposite (*naqīḍ*)—which is the affirmative particular—is true." Al-Fawzī, *Khulāṣa*, 111. If the conversion of the negative universal "No human is stone" to the negative universal "No stone is human" is not true, then the conversion of the affirmative particular "Some stone is human" to the affirmative particular "Some human is stone" is true. Qūl Aḥmad explains: "That is, if it were not true that no stone is human, then it would be true that some stone is human due to the impossibility of the suspension of both contradictory opposites (*irtifāʿ al-naqīḍayn*). Then, if it is true that some stone is human, then it is true that some human is stone, because the veracity of the original ['Some stone is human'] entails the veracity of its conversion, and this is an absurd contradiction." Al-ʿImādī clarifies that this absurd contradiction is due to "Some human is stone" being a contradiction (*naqīḍ*) of the originally posited hypothesis (*al-aṣl al-mafrūḍ al-ṣidq*), which is "No human is a stone." Qūl Aḥmad and al-ʿImādī, *Ḥāshiyat Qūl Aḥmad*, 343.

What may be easily lost upon the reader is that the original proposition remains true: "No human is stone." If it remains true that no human is stone, but the conversion to "No stone is human" is false, then absurdities follow, namely that if the proposition "No stone is human" is false, then its contradictory opposite (*naqīḍ*) "Some stone is human" is necessarily true due to the impossibility of the suspension of both contradictory opposites. If the proposition "Some stone is human" is true, then it is true that "Some human is stone," since if the original statement ("Some stone is human") is true, then its converse ("Some human is stone") must also be true. This leads to a union of contradictory opposites, namely "No human is stone" and "Some human is stone" both being true.

192. That is, we enter this proposition "Some stone is human" to our saying "No human is stone." This leads to the following syllogism:

Some stone is human.

No human is stone.

Therefore, some stone is not stone.

Negative particular does not validly convert

(The negative particular has no necessarily entailed converse [*luzūman*]), since if there existed a necessarily entailed converse for it, then the conversion could be true in every context wherein the original [proposition before conversion] is true, while that is not the case. (Because, our saying, "Some animal is not human" is true, but its converse is not true), that is, "Some human is not an animal." Moreover, he said, "necessarily entailed" [*luzūman*], due to the possibility of its converse sometimes being true due to its specific matter, such as the truth of "Some stone is not man" and "Some man is not stone."[193]

Contradictory conversion

Know, moreover, that the author [al-Abharī] did not mention contradictory conversion[194] [*al-ʿaks al-naqīḍ*]—despite its being included in the rules pertaining to propositions—due to its not being used in the sciences[195] nor in producing conclusions,[196] as will come [later in the text], namely, that the producing of conclusions [*al-intāj*] by means of the contradictory conversion of the proposition is not called syllogism, as opposed to producing of conclusions via simple conversion [*al-ʿaks al-mustawī*] in order to preserve therein the terms of the proposition.[197]

Objection to the omission of contradictory conversion

If you were to say: "If it were like that, then why do they mention it in the longer commentaries, and treat their rules at great length, nearly preventing comprehension and precision?"

193. That is, "Some X is not Y" and "Some Y is not X" are not rationally entailed due to the possibility that the converse be false while the original be true, as in the false converse "Some trees are not plants" of the true original proposition "Some plants are not trees." However, in some instances the original and conversion can be applied equally in all instances due to the material content of propositions, as in the example "Some stone is not man" and "Some man is not stone."

194. Al-Abharī's text is intended to introduce and explain the logic as developed by the later logicians (*al-muta'akhkhirūn*). The earlier logicians (*al-mutaqaddimūn*) considered the use of contradictory conversion in the syllogism valid; however, the later logicians did not. Al-Fawzī, *Khulāṣa*, 112.

195. The philosophical sciences. Al-Fawzī, *Khulāṣa*, 112.

196. The syllogisms and its conclusions. Al-Fawzī, *Khulāṣa*, 112.

197. Regarding the categorical proposition, the subject and predicate are preserved in simple conversion. So too are the antecedent and consequent preserved in the simple conversion of the hypothetical proposition. However, in contradictory conversion, these terms arguably change by being made privative.

Response to the objection

I would say: "Because, as they[198] said, it [contradictory conversion] has a useful benefit in clarifying the veracity of the proposition by means of the veracity of its contradictory conversion. However, the Shaykh [Ibn Sīnā] often drew [syllogistic] conclusions via contradictory conversion in his philosophical books as is not hidden from those who research and scrutinize him."[199]

198. The logicians.

199. That is, those who research and scrutinize his books know well that Ibn Sīnā uses contradictory conversion in order to deduce his conclusions. It would seem that the later logicians, especially those after Fakhr al-Dīn al-Rāzī, considered contradictory conversion to have a utility in demonstrating the veracity of a proposition, but they did not use propositions produced via contradictory conversion in their syllogisms.

4

The Aims of Assents: The Syllogism

The Fourth Chapter Concerning the Aims of Assents, which is the chapter of the syllogism[1] with regard to its definition and classification.

Genus: "composite saying"

(The Syllogism: It is a composite saying)[2] [this is the] genus[3]

Differentia 1: "composed of sayings," 1st differentia from one perspective

([that is] composed of sayings); the single [composite] saying is excluded, such as the simple proposition[4] that entails its converse, for example. The intended

1. *Al-qiyās* lexically means the determination (*taqdīr*) of something after the pattern, manner, or model of another.
2. The term *qawl* is translated here as "composite saying," rather than merely "saying," as it is a technical term in the nomenclature of logic that signifies a composite of explanatory phrases or propositional statements.

   The commentators remind the reader that a composite saying might be verbally uttered (*malfūẓan*) or conceptualized (*maʿqūlan*). Qūl Aḥmad, *Fawāʾid*, 107; al-Fawzī, *Khulāṣa*, 113.
3. That is, "composite saying" is the genus in this definition, which is followed by three differentiae from different angles. The full definition is: "A composite saying [genus] composed of sayings [first differentia] that—when granted—necessarily entail [second differentia] from them [third differentia] another saying."

   The commentators also mention that this could be the genus for a verbally expressed syllogism (*malfūẓ*) or a rationally conceived syllogism (*maʿqūl*). Qarah Khalīl adds, "The verbally expressed syllogism is not a syllogism with regard to it being an expression—for indeed, the expression in as much as it is an expression does not entail another expression—rather, [it is a syllogism] with regard to its being a signification of a rationally conceived meaning that necessarily entails another saying, [and that saying] is the meaning of the conclusion [i.e., the meaning signified by the utterance of the conclusion]. Qarah Khalīl, *Ḥāshiyat Qūl Aḥmad*, 388.
4. Propositions are either simple or composite. A simple proposition is a composite saying that contains only one judgment, such as "All fire is hot." A composite proposition is one that has the form of a single proposition but in fact contains two or more judgments, such as "Every human laughs, not perpetually." While it has the form of a single proposition, it in fact contains an affirmative judgment and a negative judgment: "Every human laughs,

meaning of "sayings" is 'that which is more than one',[5] necessarily, because it is valid to compose a syllogism of two premises[6]

Qualification: "such that when they are granted"

(such that when they are granted) [this phrase is] an adjective of "sayings," indicating that their being granted in reality[7] [*nafs al-amr*] is not a condition of their being called syllogisms. So, this definition also includes the syllogism composed of false premises.

Differentia 2: The condition of entailment "necessarily follows" ("*lazima ʿan*"), 2nd differentia from another perspective

(…necessarily entailed) excluded are incomplete induction and analogy, for they—even if granted—do not necessarily entail the aim[8] [*al-maqṣūd*] due to their being probabilistic.[9]

Differentia 3: "from them," 3rd differentia from another perspective

His saying ([necessarily entailed]…from them [sayings]) excludes the two premises that [only] necessarily entail one of them [and not a third premise].[10]

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actually" and "Every human does not laugh, actually." See al-Fawzī, *Khulāṣa*, 113 for this general point. Al-ʿImādī expands this example to modal logic. Al-ʿImādī, *Ḥāshiyat Qūl Aḥmad*, 388.

5. Al-Fanārī reminds us that, according to the logicians, the plural is more than one, whereas the grammarians considered the plural to be more than two. Between the singular and the plural for the grammarians is the dual, but for the logicians, plurality is that which is more than one. For the logicians, this has nothing to do with grammatical forms such as the dual suffix on nouns (*kitābāni*), as the object of study in logic is the rational conception (*maʿqūl*) and not the utterance (*lafẓ*).
6. The phrase "necessarily, because it is valid to compose a syllogism of two premises" is absent from K. It is found in T and H.
7. A syllogism will logically entail its conclusion so long as the premises are granted or believed as true. Whether the statements therein correspond to and reflect reality is not necessary for the conclusion to validly follow from the premises.
8. K puts "the aim" (*al-maqṣūd*) outside al-Fanārī's text and presents it as the text of al-Fawzī. H and T present "the aim" as part of al-Fanārī's text.
9. The aim of syllogistic logic is to produce certainty in the conclusions, even if the premises are merely granted, such that one can say, "If the premises of this valid syllogism are true, then the conclusion must necessarily be true since the conclusion is entailed by the premises." As for incomplete induction or analogy, premises derived from them do not produce certainty; instead, they are merely probabilistic, and as such would not achieve the aim of syllogistic logic, which is certainty.
10. "(…excluded are the two premises that necessarily entail one of them)." That is, one of the two premises, such as: "The water runs, and the fire is hot." Indeed, these two propositions

So, it [i.e., one of the two premises] is not entailed from them since one does not enter into [the entailment of] the other.[11]

Qualification: "in and of themselves"

(…in and of itself) guarding against the likes of the syllogism of equivalence [*qiyās al-musāwāh*]; indeed, its necessary entailment is by means of an extrinsic[12] premise [*muqaddima gharība* or *ajnabiyya*] such that if it is true, then the necessary entailment is actualized—as in equivalence[13] and encapsulation[14] [*ẓarfiyya*]—and such that if it is not true, then it is not actualized—as in halving or quartering or otherwise.[15]

Also [the qualification "in and of itself"] guards against the likes of our saying:

"A part of a substance is that whose removal [*irtifāʿuhu*] necessitates the removal of the substance"

and "All that is not substance, its removal does not necessitate removal of the substance"

which produces [*muntij*] our saying, "A part of the substance is a substance."[16]

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entail from their combination only "Water runs" or only "Fire is hot." That is, if one of them were not mentioned, the other would still be established. So, each premise has no bearing on the other and, furthermore, no entailment of a third proposition occurs. Al-Fawzī, *Khulāṣa*, 115.

11. Since there is no entailment relationship between "Water runs" and "Fire is hot," one is not entailed by the other.
12. H and K say *ajnabiyya* while T says *gharība*.
13. For example, "The risible one is equal to the rational one, the rational one is equal to human, so the risible one is equal to human." Al-Fawzī, *Khulāṣa*, 115.
14. For example, "The pearl is in the box, the box is in the house, the pearl is in the house." Al-Fawzī, *Khulāṣa*, 115.
15. That is, the following resembles a syllogism, but the conclusion does not follow from the premises because they lack an inherent quality that necessarily entails a conclusion:

    Five is half of ten.

    Ten is half of twenty.

    Therefore, five is half of twenty.

    Likewise, that twenty-five is a quarter of one-hundred and one-hundred is a quarter of four-hundred does not entail that twenty-five is a quarter of four-hundred. Likewise with fifths, sixths, and so on. Al-Fawzī, *Khulāṣa*, 116.
16. Al-Fanārī comments that the stipulation "in and of itself" (*li-dhātihā*) also excludes the following argument whose form resembles a syllogism in that it has two premises and a conclusion. However, the conclusion only follows by means of contradictory conversion (*ʿaks al-naqīḍ*) of the major premise.

Indeed, it[17] is by means of contradictory conversion of the major premise, by which I mean "All whose removal [*irtifāʿuhu*] necessitates the removal of the substance is itself a substance."[18]

Qualification: "another saying"

([...necessarily entailed from them [sayings] in and of themselves is] another saying), it is the conclusion [*al-natīja*].[19] The meaning of its otherness is that it[20] is not identical[21] to one[22] of the two premises of the connective

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Original argument:

[A] A part of a substance is [B] that whose removal necessitates the removal of the substance [A is B].

All that is [not C] not substance, is [not B] not that whose removal necessitates its removal [All that is not C is not B].

So, a part of the substance is a substance [A is C].

Argument with major premise attained by contradictory conversion:

[A] A part of a substance is [B] that whose removal necessitates the removal of the substance [A is B].

[All B] All whose removal necessitates removal of the substance is [C] a substance [All B is C].

So, [A] a part of a substance is [C] a substance [A is C].

17. That the conclusion follows from the premises is not due to their inherent qualities, but rather by means of the use of contradictory conversion, which, as mentioned in the section on conversion, is generally not used as a means of producing conclusions (*intāj*) in the sciences, especially logic, despite Ibn Sīnā's frequent usage in his philosophical works. Others, however, do permit it.
18. While the conclusion follows from the premises by means of contradictory conversion of the major premise, al-Fanārī includes this sort of production of conclusions (*intāj*) as an example of an argument that would not be considered a syllogism due to its not meeting the stipulation of "in and of itself." However, others have objected, saying that it should be considered a syllogism since contradictory conversion is a form of entailment that is still internal to the proposition itself; that is, it does not require an extrinsic premise. Ṣāliḥ al-Ghursī, "Lecture 29," *Tasjīlāt*.
19. "Know that, at this level, there is something necessary that the beginners should know, which is that this 'other saying' (*qawl ākhar*) is called a 'claim' before entering into the act of proving it, which is called the 'sought-after conclusion' (*al-maṭlūb*) once one has begun the act of proving it but before obtaining the conclusion; after completing the act of proving [the claim], then it is called the 'produced conclusion' (*al-natīja*)." Al-Fawzī, *Khulāṣa*, 116.
20. Both T, G, and H read *takūnu* in the feminine in reference to *al-natīja*, whereas K has *yakūnu* in the masculine in reference to *qawl ākhar*.
21. H and G have *ʿayn*, K and T do not.
22. Meaning it is not the same as one complete premise. The conclusion cannot be the same as one of the complete premises; however, the conclusion can contain a part of one of the premises, as in the case of the hypothetical (*al-sharṭiyya*) syllogism.

syllogism—[those two premises being] the minor and major premises—nor [identical to one of the two premises] of the exceptive syllogism—[those two premises being] the hypothetical premise and either[23] the negating premise [*al-rāfiʿa*] or the affirming premise [*al-wāḍiʿa*].[24]

As for its not being a part of one of the two premises, then it is not required.[25]

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23. There are conflicting recensions of this phrase, though I have preferred the recension in G since the meaning of the conclusion's otherness is that it is not identical to one of the two premises of:

    (a) the connective syllogism, meaning it is neither the major premise nor minor premise

    (b) nor is it identical to one of the two premises of the exceptive syllogism, meaning it is neither the hypothetical premise (e.g., "If the sun has risen, then day has come") nor the second premise in the exceptive syllogism which can either be a negating premise (e.g., "But day has not come") or an affirming premise (e.g., "The sun has risen").

    The various recensions referenced are as follows, starting with the preferred recension:

    G: the hypothetical premise *and* the negating premise *or* the affirming premise.

    T: the hypothetical premise *or* the negating premise *or* the affirming premise.

    K: the hypothetical premise *or* the negating premise *and* the affirming premise.

    H: the hypothetical premise *or* the negating premise *or* the affirming premise.

24. The affirming premise (*al-muqaddima al-wāḍiʿa*) affirms the antecedent of the preceding hypothetical premise, thereby entailing the affirmation of the consequent.

    In the following exceptive syllogism, the first premise is the hypothetical premise (*al-sharṭiyya*), and the second premise, "Day has come," is the affirming premise (*al-wāḍiʿa*):

    If the sun has risen, then day has come.

    The sun has risen.

    Therefore, day has come.

    The negating premise (*al-muqaddima al-rāfiʿa*) affirms the contradictory opposite of the consequent, thereby negating the antecedent.

    In the next syllogism below, "Then day has not come" is the negating premise (*al-rāfiʿa*):

    If the sun has risen, then day has come.

    The day has not come.

    Therefore, the sun has not risen.

25. This clarification is in answer to a question not mentioned in the text. When one reads that the otherness of the conclusion is that that conclusion is not one of the two premises in the connective (*al-iqtirānī* [connective]) syllogism, nor one of the two premises of the exceptive syllogism (*al-qiyās al-istithnāʾī*), then one might think that the condition is that the conclusion cannot even be a part of the previous two premises. That, however, would be in error, as discussed below.

    Al-Fawzī says:

    This (statement) indicates the answer to one who says: 'What do you say if the conclusion is a part of one of the two premises, such as:

    If snow is in your hand, your hand is cold.

    Except snow is in your hand.

The reason that otherness was stated as a condition is that if not for it [i.e., the condition of otherness], then it [i.e., the syllogism or conclusion] would have either been superfluous[26] [*hadhayānan*] or begging the question [*muṣādaratan ʿalā al-maṭlūb*],[27] entailing/comprising[28] vicious circularity from which one flees[29] [*al-mahrūb ʿanhu*].[30]

Objection to the definition of 'composite proposition'

If you said:

The composite proposition that entails its converse [*li-ʿaksihā*] and its contradictory converse [*ʿaks naqīḍihā*], the definition of syllogism applies to it, while it is not[31] called 'syllogism'.

Response to the objection

I would respond:

So, your hand is cold.

In this (above) syllogism, it (the conclusion) occurs first as a part of the first premise.'

He (al-Fanārī) answers with his saying 'As for that other compound saying not being a part of one of the two premises, then that is not required,' that is to say, it is not necessary (*wājib*).

The conclusion cannot be one of the two premises in their entirety, but in the case of the exceptive syllogism, the conclusion can be a part of one of the two premises. See al-Fawzī, *Khulāṣa*, 117.

26. *Hadhayān* lexically means senseless or irrational talk but is likely here more particular when used as a technical term for an argument that is *laghw*: tautological, superfluous, and without benefit. It is not that the conclusion itself is senseless or incomprehensible; it is that the logic of the argument is ineffectual, erroneous, and does not follow. If one says, "All men are mortal, Socrates is a man, therefore all men are mortal and Socrates is a man," this is superfluous and without benefit.
27. *Muṣādaratan ʿala al-maṭlūb*, literally meaning "demanding what is sought," is a technical term meaning "The claim being the same as the proof, or one of its premises." Al-Fawzī, *Khulāṣa*, 117. It is aptly translated as "begging the question."
28. T has "entailing" (*mustalzimatan*), while K and H have "comprising" (*mushtamilatan*). An editor's note in T mentions that different manuscripts indicate that these two different terms were in use. See the editor's note in al-Ẓāhirī (ed.), *Ḥāshiyat Qūl Aḥmad*, 397n.1.
29. Circular reasoning that is benign (*al-dawr al-maʿī*), such as 'parent' entailing 'child' and viceversa, is not the kind of circularity from which one flees (*mahrūb ʿanhu*) because it is not rationally impossible, unlike the vicious circularity (*al-dawr al-taqaddumī*). Qarah Khalīl, *Ḥāshiyat Qūl Aḥmad*, 398.
30. Were it not for this condition of otherness, superfluous tautological reasoning or vicious circularity would be entailed. Qūl Aḥmad, *Ḥāshiyat Qūl Aḥmad*, 398.
31. This is how the objection reads in T and H. K omits "not."

We do not grant this,[32] for it[33] is not called 'sayings'; rather, [it is called] a singular saying composed of sayings. That is how they answered.[34]

The Two Types of Syllogisms

The connective syllogism

(And it), that is, the syllogism, is two types, because it (is either connective) if neither the conclusion nor its contradictory opposite is actually mentioned in it verbatim[35] (such as our saying, "Every body is composite, and every composite is originated, so every body is originated.") It is not mentioned[36] in the syllogism, actually, not in itself nor as its contradictory opposite; rather, [it is mentioned] effectively[37] through mention of its material without its form.[38]

The exceptive syllogism

(Or, it is exceptive) if the conclusion or its contradictory opposite was actually mentioned in it, (such as our saying, "If the sun has risen, then day has come); however, the sun has risen," so the conclusion—which is "Day has come"—is

32. That is, "We do not grant that the definition of syllogism is applied to that composite proposition."
33. The composite saying that entails its converse…is not called "sayings"….
34. Al-Fawzī takes issue with this response and claims that it only makes matters worse. See al-Fawzī, *Khulāṣa*, 118.
35. The term I am translating here as "verbatim" is actually "in form" (*ṣūratan*). More literally, it might be translated as "…actually mentioned in it in form." However, "verbatim" gets the meaning across more directly.

    The terms "actually" (*bi-l-fiʿl*) and "in form" (*ṣūratan*) are mentioned to emphasize that while the subject of the conclusion is found as the subject of the minor premise, and the predicate of the conclusion is found as the predicate of the major premise, the entire minor premise consisting of the minor term and middle term along with any quantifiers and qualifiers will never be the verbatim restatement of the conclusion. Likewise, the entire major premise consisting of the major term and the middle term along with any quantifiers and qualifiers will also never be the verbatim restatement of the conclusion. Al-Fawzī, *Khulāṣa*, 118.
36. As in T and H. K, however, treats "is not mentioned" as al-Fawzī's commentary rather than part of al-Fanārī's text. Al-Fawzī, *Khulāṣa*, 119.
37. *Bi-l-quwwa* is translated here as "effectively" rather than "potentially" for clarity.
38. That the conclusion is effectively and not actually mentioned in the premises through mention of its matter without its form means that the subject of the conclusion is mentioned in the minor premise and the predicate is mentioned in the major premise. So, while it is not actually mentioned verbatim, its parts are dispersed throughout the premises and thereby effectively mentioned.

actually mentioned in it, that is, verbatim [in its form], or we say, ("However, day has not come, so, the sun has not risen"), so the contradictory opposite of the conclusion—that is, "The sun has risen"—is actually mentioned in it.

Definition, Key Terms, and Components of the Connective Syllogism (*al-qiyās al-iqtirānī*)

When he finished the definition of the syllogism and its division into two categories, he began the division of each of the two categories and their properties. The connective syllogism [*al-qiyās al-iqtirānī*] is comprised of three terms:

- the subject of the sought-after conclusion[39] [i.e., "that which is sought"]
- its predicate, and
- the repeated term between the two premises.

So, we say: (The repeated [term] between the premises of the syllogism is called the middle term) due to its being in the middle between the two extremes of the proposition one seeks to prove [i.e., the sought-after conclusion (*al-maṭlūb*)], such as [the term] 'composite' mentioned in the previous example.[40]

(And the subject of the proposition one seeks to prove is called the minor term) because most often it has fewer members than the predicate, so it is minor [*aṣghar*].[41] (And its predicate is called the major term) because it is most often greater in members.

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39. The produced conclusion (*al-natīja*), "the sought-after conclusion" (*maṭlūb*), and "the claim" (*al-daʿwā*) were discussed previously. Al-Fawzī, *Khulāṣa*, 116.
40. The previously mentioned example was:

    Every body is composite.
    Every composite is originated.
    So, every body is originated.

    The term 'composite' is the term found in the middle between the first extreme of the conclusion—which is 'body'—and the second extreme of the conclusion—which is 'originated'—and, as such, is called the 'middle term'.
41. Lost in translation is that what is called the minor term in English is actually called 'the lesser term' in Arabic (*al-ḥadd al-aṣghar*) as compared to 'the greater term'. The comparative (*tafḍīl*) form in Arabic carries the meaning that the members of the minor term, such as 'human', are less in number than the members of the greater term 'animals' in the statement "All humans are animals." The members signified by the minor term 'humans' are less in number than the members signified by major term 'animals'.

The premises and their figures

(The premise wherein the minor term is found is called the minor premise [*ṣughrā*]) because it is [the premise which] comprises and possesses the minor term. (And [the premise] in which is found the major term is called the major premise [*kubrā*] because it possesses the major term and comprises it).
(The configuration of the composition of the minor premise and the major premise is called figure [*shakl*]), thereby likening it to a bodily form that results from one or multiple limits [*ḥudūd*] encompassing a [spatial] magnitude [*al-miqdār*].[42]

The Figure of the Syllogism

The first figure

(The figures [of the syllogism] are four, because if the middle term is the predicate in the minor premise and the subject in the major premise, then it is the first figure [*al-shakl al-awwal*] because[43] it is self-evidently productive [*badīhī al-intāj*] and brought about in alignment with the natural order[44]

42. Using the term 'figure' likens objects of rational conception (*al-maʿqūlāt*) to objects of sensation (*al-maḥsūsāt*). The term *ḥadd* is used to refer to the sides of a three-dimensional sensory object, and the same term is used to refer to the three parts of the propositions used in connective syllogisms, namely the minor, major, and middle terms. This is an example of *istiʿāra muṣarraḥa aṣliyya* ("explicit primary metaphor") in the original coinage of these terms for these technical concepts in logic; then, their usage became literal as technical terms (*ḥaqīqiyya ʿurfiyya*). See Qūl Aḥmad, *Ḥāshiyat Qūl Aḥmad*, 403; al-Fawzī, *Khulāṣa*, 121.

    Al-miqdār is a technical term in Euclidian geometry, translated here as "magnitude." A physical form can have one limit (*ḥadd*) as in a three-dimensional sphere or two-dimensional circle (drawn on paper, for example). It can have three limits in a two-dimensional triangle and more in three-dimensional shapes, such as pyramids or cubes. However, a physical form cannot have only two limits; with that, al-Fanārī says "…obtained from one or multiple limits (*ḥudūd*)," rather than "…one limit, two limits (*ḥaddayn*), or multiple limits (*ḥudūd*)." Ṣāliḥ al-Ghursī, "Lecture 29," *Tasjīlāt*.

    "*Al-miqdār* refers to extension (*al-imtidād*) in height, width, and depth." Qūl Aḥmad, *Fawāʾid*, 113.

    "*Al-miqdār* is the genus for line (*al-khaṭṭ*), surface (*al-saṭḥ*), and three-dimensional geometrical object (*al-jism al-taʿlīmī*)." Qarah Khalīl, *Ḥāshiyat Qūl Aḥmad*, 404.

43. The first form is first, rather than second or otherwise, because its conclusion is self-evidently obtained from the premises without additional contemplation.

44. The text in H and K is: *ʿalā naẓm al-ṭabīʿa*. The text in T is: *ʿalā qaḍiyyat al-ṭabʿ*. Coupled with the commentary in K, we can summarize as follows: "…brought about in alignment with the natural order of reasoning and according to the dictates of reason."

[and dictates of reasoning]. Indeed, [human] nature is naturally disposed to movement from a thing[45] to the intermediary thing whose judgment necessitates the judgment of the sought-after conclusion.

The fourth figure

(If it is the opposite), that is [if the middle term is] the subject in the minor premise and the predicate in the major premise, (then it is the fourth) figure, such as our saying, "Every human is an animal, and every rational [being] is a human, therefore, some animal is rational."

The third figure

(If [the middle term is] the subject in both of them,[46] then it is the third) figure, such as our saying "Every human is an animal, and every human is rational, then some animal is rational."

The second figure

(If [the middle term is] the predicate in both of them, then it is the second) figure, such as our saying "Every human is an animal, no horse is an animal, so no human is a horse."[47]

Moreover, that [second figure] is second and what is before it third because that [second figure] shares with the first figure in the noblest of the two premises—which is the minor premise—due to its comprising the subject of the sought-after conclusion. And that [third premise] shares [with the first figure] in the lowest of the two premises—which is the major premise—as opposed to the fourth figure, since it has nothing shared at all with the first figure.

(So, these are the four figures mentioned in logic).

The figures with regard to productivity (*intāj*) and stipulation (*ishtirāṭ*)

The difference between them [the four figures] on account of quiddity and nobility was previously discussed. [The difference] with regard to productivity

45. A thing, such as the minor term, in the minor premise, which is naturally inclined to the intermediary thing—such as the middle term—whose judgment necessitates the judgment of the conclusion. That is, if the middle term is subject to an affirmative or negative judgment, then the conclusion is affirmative or negative, respectively. Al-Fawzī, *Khulāṣa*, 122.
46. That is, both the major and minor premises.
47. The example given here is formally valid, and, as such, it successfully demonstrates how the second figure works. Its major premise is, however, materially false, since in reality, all horses are animals.

is that the first produces the four sought-after conclusions [*maṭālib*]:[48] the two universal propositions, affirmative and negative, and the two particular propositions, affirmative and negative. The second figure produces the two negative propositions, not the affirmative. The third and fourth figures produce the two particular propositions, not the two universal propositions.

Stipulations for productivity

As for [their difference] with regard to stipulation:[49] For the first figure, with regard to quality, [the stipulation is] affirmativeness of the minor premise, and [with regard to] quantity, it is the universality of the major premise. For the second figure, with regard to quality, [the stipulation is] the two premises differing in affirmation and negation, and [with regard to] quantity, it is the universality of the major premise. For the third figure, with regard to quality, [the stipulation is] affirmativeness of the minor premise, and [with regard to] quantity, it is the universality of one of the two premises. For the fourth figure, with regard to quality and quantity, [the stipulation is] the affirmativeness of the two premises along with the universality of the minor premise, or [with regard to quality and quantity, the stipulation is] the two premises' differing in affirmation and negation along with the universality of one of them. The demonstrative proofs [for these claims] are found in the longer works [of logic].

The Figures with Regard to Deducing the Conclusions

The first figure's productivity

(The fourth figure from among these [figures] is very far from natural reasoning [*al-ṭabʿ*]) due its contradicting the first figure—which is close to natural reasoning and aligns with the natural order—in each of the two premises.[50]

48. The first figure produces four possible conclusions with regard to quantity: (1) The universal affirmative proposition, (2) the universal negative proposition, (3) the particular affirmative proposition, and (4) the particular negative proposition.
49. That is, with regard to the stipulated conditions that are considered with regard to the productivity of these figures.... Al-Fawzī, *Khulāṣa*, 124.
50. The fourth figure is very far from natural reasoning due to its differing from the first figure in each of its two premises. How does it differ from the first figure? It is that in the fourth figure the middle term is the subject of the minor premise and the predicate of major premise, while in the first figure the middle term is the predicate of the minor premise and the subject of the major premise.

(One with a sound intellect and upright nature is not in need of reducing the second figure to the first figure) because he—due to its extreme nearness to the first figure—is led by his upright nature to the conclusion[51] without seeking to return it to the first, unlike the third and fourth figures, for indeed, they are far from the first figure in relation to it [the second figure].[52]

All syllogisms reduce to the first mood of the first figure

There is no doubt that all [four] of the figures reduce in reality to the first figure; indeed, [they reduce to] the first mood of the first figure; moreover, [they reduce] to the immediate[53] [*ḍarūrī*] of the first mood of the first figure, as is known from the longer works [of logic]. Likewise, the exceptive [*istithnāʾī*] syllogism is reducible to the connective [*iqtirānī*] and vice versa.

The second figure's productivity

(The second figure is productive when the two premises differ in affirmation and negation) since, if they were to agree,[54] that would entail a disparity [in the conclusion] that necessitates non-productivity. [This kind of disparity occurs if] a syllogism with a certain form is true in one case when the conclusion is affirmative and in another case when the conclusion is negative.[55] This [scenario] proves that the conclusion is not necessarily entailed by the essential nature [of the syllogism], due to the impossibility of a disparity in what is necessitated by the essence [i.e., the syllogism itself].

As for when there are two affirmative premises, it is like our saying, "Every human is an animal, every rational being—or every horse—is an animal."[56]

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51. This is an example of implicit metaphor (*istiʿāra bi-l-kināya*): the second figure is like the horse led by the whip of upright nature to the conclusion. How do we know this is *istiʿāra*? The contextual indicant is the mention of the conclusion, which is like a horse being led. Upright nature is likened to a whip. Al-Fawzī, *Khulāṣa*, 126.
52. Since the third and fourth figures are far from resembling the first figure—far in relation to the second figure's nearness to the first figure—they are in need of being reduced to the first. The third is reduced to the first figure by conversion (*ʿaks*) of the minor premise. The fourth figure is reduced to the first by converting the order (*ʿaks al-tartīb*) or converting both of the two premises. Al-Fawzī, *Khulāṣa*, 126.
53. "Moreover, [they reduce] to the immediate, in that non-immediate propositions reduce to the immediate…." Qarah Khalīl, *Ḥāshiyat Qūl Aḥmad*, 408.
54. If both premises were to agree in either affirmation or negation, that would entail….
55. See the following footnotes for examples. For more examples, see Qūl Aḥmad, *Ḥāshiyat Qūl Aḥmad*, 409.
56. Al-Fanārī truncates the example, expecting the reader to unpack them as follows,

As for when there are two negative premises, it is like our saying, "No human is a stone, no horse—or no rational being—is a stone."[57]

The Moods of the First Figure, Their Examples, and Their Order

(The first figure is that which is made a standard for the sciences), that is, a standard measure, and the standard [*al-ʿiyār*] is the measure [*al-wazn*]. So, we mention it here in order to make it an official canon [*dustūr*]), that is, an authoritative reference [*marjiʿ*] with which to suffice[58] (and [in order to] draw from it the conclusions,[59] and the conditions of its productivity are affirmativeness of the minor premise and universality of the major premise.[60] Its productive moods are four); the syllogism necessarily leads to sixteen moods[61]

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demonstrating that in one instance such an arrangement of premises can lead to a true conclusion, while in another instance, such an arrangement produces a false conclusion:
Every human is an animal. [affirmative]
Every rational being is an animal. [affirmative]
So, every human is a rational being. [true]

Every human is an animal. [affirmative]
Every horse is an animal. [affirmative]
So, every human is a horse. [false]

57. As in the previous example, al-Fanārī expects his reader to unpack the following examples which demonstrate that two negative premises in a second figure syllogism produce a true conclusion in one instance, and a false conclusion in another:
No human is a stone. [negative]
No horse is a stone. [negative]
So, no human is a horse. [true]

No human is a stone. [negative]
No rational being is a stone. [negative]
So, no human is a rational being. [false]

58. The first figure—along with its moods—is mentioned as an authoritative reference point to return to; thereby one can suffice with the first figure without needing to mention the other three figures and its moods. Al-Fawzī, *Khulāṣa*, 128.

59. The conclusions (*al-maṭālib*) are the four possible quantified propositions (*al-maḥṣūrāt*): universal affirmative, universal negative, particular affirmative, and particular negative, as discussed previously.

60. The phrase "and the conditions of its productivity are affirmativeness of the minor premise and universality of the major premise" is present in A and S (and again in the separate printing of the *Īsaghūjī* in S) but is omitted in H, G, and K. It seems probable that the manuscript that al-Fanārī was referencing (or had memorized) did not have this phrase. The editor of T includes the phrase in al-Abharī's text, but places it in brackets, followed by a note regarding the differing recensions. See *Ḥāshiyat Qūl Aḥmad*, 412n.1.

61. Qūl Aḥmad notes: "This is based on the fact that there is no consideration of the singular

obtained from combining the four possible quantified minor premises with their respective major premises,[62] except that the affirmativeness of the minor premise drops eight which are obtained by combining the two negative minor premises with the four major premises.[63] Also, the universality of the major premise drops four others which are obtained by combining each of the two particular major premises with the affirmative minor premises. So, four moods remain.

Examples of the four moods

(The first) mood: two affirmative universal premises produce an affirmative universal conclusion, (such as our saying: "Every body is composite, and every composite is originated, so, every body is originated.")

(The second) [mood]: two universal premises wherein the major premise is negative produce a negative universal conclusion, (such as our saying: "Every body is composite, and no composite is eternal, so, no body is eternal.")

(The third) [mood]: two affirmative premises wherein the minor premise is particular produce an affirmative particular conclusion, (such as our saying: "Some body is composite, and every composite is originated,[64] so, some body is originated.")

(The fourth) [mood]: an affirmative particular minor premise and a negative universal major premise produce a negative particular conclusion, (such as our saying: "Some body is composite, no composite is eternal, so, some body is not eternal.")

The reason that he [al-Abharī] arranged this order with regard to the conclusion is that the first mood produces the noblest [*ashraf*] of the quantified

(*shakhṣiyya*) syllogism nor the natural (*ṭabʿiyya*) syllogism, otherwise the syllogism necessarily leads to sixty-four moods…." Qūl Aḥmad, *Fawāʾid*, 117.

62. That is, the four productive moods are produced by starting with the combination of the four possible minor premises (affirmative universal [AU], affirmative particular [AP], negative universal [NU], negative particular [NP]) and combining them with each possible major premise (AU, AP, NU, NP). This produces sixteen possible combinations (AU / AU, AU / AP, AU / NU, AU / NP, etc.).

63. That is, combining a negative universal minor premise with one of the four possible major premises (affirmative universal [AU], affirmative particular [AP], negative universal [NU], negative particular [NP]) or combining a negative particular minor premise with one of the four possible major premises; in each instance, they will not produce a conclusion. So, those eight possible combinations (NU / AU, NP / AU, NU / AP, NP / AP, etc.) are dropped from consideration as they are barren or non-conclusive syllogisms.

64. In example one, al-Abharī uses the term *muḥdath*, translated herein as "originated," while in example three he uses the term *ḥādith*, also translated as "originated."

propositions [*al-maḥṣūrāt*], which is the affirmative universal [proposition], due to its consisting of the two nobles: the affirmative and the universal. The second [mood] produces a negative universal [proposition], which is nobler than the affirmative particular [proposition],[65] because the universal's nobility—[which] is due to its [nobility] being from a number of perspectives, such as[66] its [the universal's] being comprehensive,[67] precise,[68] and useful in the sciences—is greater than the nobility of the affirmative particular [proposition].[69] The third [mood] produces an affirmative particular, which is nobler than the negative particular, because it [the affirmative particular] contains a single nobility, that is, affirmativeness. There is nothing of nobility in the fourth [mood's] conclusion.

The Types of the Connective Syllogism (*al-qiyās al-iqtirānī*)

(The connective syllogism) is of five types from another perspective,[70] because it is (either composed of two categorical propositions[71] as mentioned

65. The affirmative particular proposition is found in the conclusion of the third mood, and the negative universal is found in the conclusion of the second mood. Since being universal is nobler than being particular, the second mood is placed before the third due to the greater nobility of its conclusion.
66. H, K, S, G, and A have *ka-kawnihi*. T has *li-kawnihi*.
67. The universal is comprehensive (*shāmilan*) of all individuals (*afrād*) to which it applies. Al-Fawzī, *Khulāṣa*, 130.
68. It is precise (*maḍbūṭan*), in that nothing of the individuals to which it applies are excluded. Al-Fawzī, *Khulāṣa*, 130.
69. The second mood is nobler than the third, because the second mood produces a negative universal, while the third produces an affirmative particular. The quality is not the deciding factor in preferential arrangement; rather, it is the quantity. Why is universality nobler than particularity? It is because that nobility is based on the numerical extent of the matter, including its being comprehensive of all particular individuals to which it applies, its being precisely delimiting in that no instance or individual is excluded, and its being useful and beneficial in the sciences. Particularity does not enjoy these three qualities as it is not comprehensively inclusive, precisely delimiting, nor useful in the sciences. So, the nobility of universality is due to that nobility being established by at least these three previously mentioned qualities. Al-Fawzī, *Khulāṣa*, 130.
70. Having categorized the connective syllogism by its figures and their moods, the author proceeds to categorize it from another perspective, namely its composition. That is, this categorization schema divides connective syllogisms according to the types of propositions of which they are composed, namely combinations of categorical and hypothetical.
71. A connective syllogism composed of two categorical propositions is called a categorical syllogism in the Western scholastic logic tradition. In the *manṭiq* tradition, it is called the connective-categorical syllogism (*al-iqtirānī al-ḥamlī*). See the editor's note in al-Ẓāhirī (ed.), *Ḥāshiyat Qūl Aḥmad*, 415n.1.

previously) more than once,

(or [it is composed of] two conditional hypothetical propositions,[72] such as our saying:

If the sun has risen, then day has come.

Whenever day has come, the earth is illumined.

So, if the sun has risen, then the earth is illumined).

This is because the entailer[73] of the entailer[74] [of X] entails [X] [*malzūm al-malzūm malzūm*].[75]

(or [it is composed of] two disjunctive hypothetical propositions, such as our saying:

Every number is either even or odd.

Every even number is either divisible into two even numbers [*zawj al-zawj*] or divisible into two odd numbers [*zawj al-fard*])[76] because, either it is divided

72. In dividing the connective syllogism into five categories, al-Fanārī apparently did not count the composite of two categorical propositions, as they had already been mentioned. The five categories listed here may be understood as "five more categories in addition to the category consisting of two categorical propositions." With that, some, such as al-ʿImādī, say there are six categories of connective syllogisms, namely the categorical-connective which consists of two categorical (*ḥamliyya*) propositions, and the five hypothetical-connective syllogisms discussed in what follows. Al-ʿImādī considers this division into five to be the error of an early copyist, and not the error of al-Fanārī. Al-ʿImādī, *Ḥāshiyat Qūl Aḥmad*, 415. See, however, the editor's note that al-Fanārī concludes this section with the phrase: "and these are the five categories of connective syllogisms" in al-Ẓāhirī (ed.), *Ḥāshiyat Qūl Aḥmad*, 415n.2. In his discussion of syllogisms in *Fuṣūl al-badāʾiʿ*, al-Fanārī explicitly mentions that the connective hypothetical syllogism is divided into the five combinations, a fact that lends credence to al-ʿImādī's hypothesis. Muḥammad al-Fanārī, *Fuṣūl al-badāʾiʿ fī uṣūl al-sharāʾiʿ*, ed. Muḥammad Ḥusayn Ismāʿīl (Beirut: Dār al-Kutub al-ʿIlmiyya, 2006), 1:68.

73. Entailer 1: The sun has risen.

74. Entailer 2: Day has come.

75. More simply, A is an entailer of B [i.e., A entails B], B is an entailer of C [i.e., B entails C], therefore A is an entailer of C [i.e., A entails C]. The key to unlocking this phrase is to realize that *the entailed* as found in the minor premise becomes *the entailer* in the major premise. "The entailer of the entailer is an entailer" means "*the entailer* (A) of that which was *the entailed* (B) in the minor premise, but then became *the entailer* (B) of *the entailed* (C) of the major premise, is also *an entailer* (A) of *the entailed* (C) of the major premise."

76. The terms *zawj al-zawj* and *zawj al-fard* are technical terms of number theory treated in the classical science of arithmetic (*ʿilm al-ḥisāb*). Al-Fawzī mentions several different definitions of these terms. "Some scholars of arithmetic (*al-ḥisāb*) say that '*zawj al-zawj*' is an even number that can be halved until reaching the number one [such as the number eight: half of eight is four, half of four is two, half of two is one] and '*zawj al-fard*' is a number that cannot be halved until reaching one, such as six or ten [half of six is three, and three is an odd number and, as such, indivisible evenly]. Other scholars have said that

into two equal parts, or it is not.

(So, every number is either odd, or divisible into two even numbers, or divisible into two odd numbers)

because the true [disjunct] [*al-ṣādiq*] from the first disjunctive hypothetical proposition,[77] if it is oddness, then it [oddness] is one of the parts [i.e., disjuncts][78] of the conclusion, and if it [the true disjunct] is evenness, which is limited to two disjuncts,[79] then the true [disjunct] is one of those two disjuncts, which are mentioned in the conclusion as well; therefore, the conclusion composed of these three parts [i.e., three disjuncts][80] would be absolutely true.

(or [it is composed of] a categorical proposition and a conditional proposition, such as our saying: "If this is human, then it is an animal. Every animal is a body. Therefore, if this is a human, then it is a body," because whatever applies to everything to which the entailed [*lāzim*] [e.g., animalness] applies [e.g., body] also applies to the entailer [*malzūm*] [e.g., humanness], absolutely.[81]

(or [it is composed of] a categorical proposition and a disjunctive proposition, such as our saying: "Every number is either even or odd. Every even [number] is divisible into two equal parts. Therefore, every number is either odd or divisible into two equal parts), because the coexstensive [i.e., 'that which is divisible into two parts'] of one of two opposites is the opposite of the other."[82]

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a number that can only be halved once is '*zawj al-fard*', such as ten [ten can only be halved once]. If a number can be halved more than once, then if it can be halved until reaching one, then it is '*zawj al-zawj*' and if not, then it is '*zawj al-zawj wa-l-fard*', such as twenty." Al-Fawzī, *Khulāṣa*, 132.

Also, see Syed Nomanul Haq, *Names, Natures and Things: The Alchemist Jābir Ibn Hayyān and His Kitāb Al-Aḥjār* (*Book of Stones*) (Netherlands: Springer Netherlands, 1995).

77. "…which is the minor premise, by which I mean his saying 'Every number is either even or odd'…." Al-Fawzī, *Khulāṣa*, 132.
78. "…by which I mean his saying 'Every number is either odd…." Al-Fawzī, *Khulāṣa*, 132.
79. "The first of them is being divisible into two even numbers (*zawj al-zawj*), and the other is being divisible into two odd numbers (*zawj al-fard*)…." Al-Fawzī, *Khulāṣa*, 132.
80. The three parts are: (1) odd, (2) divisible into two even numbers, and (3) divisible into two odd numbers.
81. 'Body' applies to both the entailer ('animal') and the entailed ('human').
82. Al-Fanārī explains why this syllogism leads to this conclusion, namely that since the equivalent or coextensive [i.e., that which is divisible into two parts] of one [i.e., the even number] of two opposites [i.e., odd and even numbers] is the opposite of the other [the odd number]. Restated: Since 'that which is divisible into two parts' is the equivalent or coextensive of 'the even number', and 'the even number' is the opposite of 'the odd number', then 'that which is divisible into two parts' is the opposite of 'the even number'.

(or [it is composed of] a conditional proposition and a disjunctive proposition, such as our saying: "If this is a human, then it is an animal. Every animal is either white or black. Therefore, if this is a human, then it is either white or black) because dividing all that to which the entailed applies entails dividing the entailer."

So, these are the five categories of the connective syllogism. Exhaustive treatment of the investigation into the verification of its productivity [*intāj*] [is relegated to] the longer commentaries.[83]

The Divisions of the Exceptive Syllogism (*al-qiyās al-istithnā'ī*)

As for the Exceptive Syllogism, it necessarily [comprises] a hypothetical [proposition] that is either conditional or disjunctive, [the latter being] either strict, mutually exclusive, or totally exhaustive. The conditional produces, by affirmation of the antecedent, the affirmation of the consequent, and by negation of the consequent, the negation of the antecedent. [That amounts to] two [productive configurations of the exceptive syllogism].

The strict [disjunctive] produces, by affirmation of either disjunct, the negation of the other, and by the negation of either of them, the affirmation of the other. [This amounts to] four [more productive configurations of the exceptive syllogism]. The mutually exclusive [disjunctive] only produces, by the affirmation of either of them [i.e., its disjuncts], the affirmation of the other. [This amounts to] two [more configurations]. The totally exhaustive [disjunctive] only produces, by the negation of either of them [i.e., its disjuncts], the affirmation of the other. [This amounts to] two [more configurations]. The whole collection of productive [syllogistic configurations] amounts to ten, while those that are non-productive amount to six: two with conditional [premises], two with mutually exclusive [disjunctive premises], and two with totally exhaustive [disjunctive premises].

83. "'(Exhaustive treatment of the investigation into…)' hints at the answer to an implied question which is to say, 'Yes, I know that these are the five categories, but you did not mention the conditions of their productivity (*intāj*) while its proofs are treated exhaustively, so it is necessary that you mention it because I am a beginner in this science'. So, he answers with his saying '(Exhaustive treatment of the investigation into the verification of its productivity [*intāj*]'), while their conditions and detailed proofs is deposited (in the longer commentaries) on the books of logic. So, if you want, then review them.'" Al-Fawzī, *Khulāṣa*, 133.

The Exceptive Syllogism Comprising an Affirmative Entailing Conditional Hypothetical Proposition

That is the full discussion of the matter, while [al-Abharī] alludes to some of what we mentioned by saying: (as for the Exceptive Syllogism, the hypothetical premise that is posited in it, if it is an) affirmative entailing (conditional hypothetical proposition [*muttaṣila mūjiba luzūmiyya*]), then excepting the antecedent itself produces the consequent itself, such as our saying:

If this is a human, then he is an animal.

Except he is human.

So, he is an animal.

…because the existence of the entailer[84] entails the existence of the entailed.[85]

The excepting of the contradictory opposite of the consequent produces the contradictory opposite of the antecedent, such as our saying:

If this is a human, then he is an animal.

Except he is not an animal.

So, he is not a human.

…because the nonexistence of the entailed entails the nonexistence of the entailer, while the excepting of the consequent itself [*ʿayn al-tālī*] and the excepting of the contradictory opposite of the antecedent does not produce anything; so, excepting [*al-istithnāʾ*] is more general than affirmation [*al-waḍʿ*]—which is called *excepting the thing itself* [*istithnāʾ al-ʿayn*]—and [more general than] negation [*al-rafʿ*], which is called *excepting the contradictory opposite* [*istithnāʾ al-naqīḍ*].[86]

Objection Regarding 'Coextensive Entailment' and Response

If you were to say:

That is correct in the case when the entailment [*mulāzama*] is more general,[87] but as for when it is coextensive [*musāwiya*], then the excepting of

84. Such as the existence of human.

85. Such as the existence of animal.

86. Excepting (*al-istithnāʾ*) as a general term is more general than (a) excepting the thing itself (*istithnāʾ al-ʿayn*) and (b) excepting the contradictory opposite (*istithnāʾ al-naqīḍ*). See al-Fawzī, *Khulāṣa*, 135.

87. "That is, that which was stated—regarding the excepting of the consequent itself not

each itself [i.e., the antecedent and consequent] produces the other itself, and the excepting of the contradictory opposite of each produces the contradictory opposite of the other, as he [al-Nasafī (d. 687/1288)] said in *al-Fuṣūl*: "The judgment in the four forms [*al-ṣuwar al-arbaʿ*] is absolute [*qaṭʿī*]."

Then I would say:

The coextensive [entailment] is in reality two entailments, so each pair of judgments in the four aforementioned [cases] is an entailment between two entailments. Do you not see that the existence of the entailed entails the existence of the entailer in them [the pairs of coextensive entailments] not inasmuch as it [the entailed] is entailed, but rather inasmuch as it is an entailer? Likewise, the nonexistence of the entailer entails the nonexistence of the entailed not inasmuch as it is entailed, but rather inasmuch as it is an entailer.

The Exceptive Syllogism Comprising a Disjunctive Hypothetical Proposition

(And if [the hypothetical proposition in the exceptive syllogism] were disjunctive, the excepting of one of the two parts [from the antecedent and consequent] itself would produce the contradictory opposite of the other) because the existence of one of two disjuncts as true entails the nonexistence of the other, and this is with regard to strict and the mutually exclusive [disjunctive propositions]. (The excepting of the contradictory opposite of one of them produces the other iteslf) because the nonexistence of one of two disjuncts as false entails the existence of the other; and this is with regard to the strict and totally exhaustive [disjunctive propositions].

The content of this book drops the details, while the core is what we have mentioned and upon it one relies; and the examples are not hidden.

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producing the antecendent itself, and the excepting of the contradictory opposite of the antecedent not producing the contradictory opposite of the consequent—is true when the entailment between the antecedent and the consequent is general in its matter (*mādda*), meaning that the predicate is more general than the subject. For example, our saying, 'If this is a human, then it is an animal.'" Al-Fawzī, *Khulāṣa*, 135–6.

The Five Arts

Among the chapters of logic are the five arts [*al-ṣināʿāt al-khams*][88] because the logician, just as he investigates the form [of the syllogism], so too does he investigate the matter [of the syllogism]. So, when he completed referencing the investigations into the form, he indicated the investigations of the matter too. He said,[89] among the five arts is:

Demonstration

(The demonstration [*burhān*], which[90] is a syllogism [that is a] composite of certain premises [*muqaddimāt yaqīniyya*] in order to produce[91] certainty). This is more general than their [premises] being immediate [*ḍarūriyya*] or derived from them [immediate premises].[92] So, 'syllogism' [*qiyās*] is a genus[93] which includes the five syllogisms.[94] [The term] "composite" is mentioned in order to connect to it his saying "of certain premises."[95] This[96] excludes rhetoric, dialec-

88. G and H has *khams*, and K has *khamsa*.
89. When al-Fanārī says, "He said, among the Five Arts is…," he is not claiming it to be from al-Abharī's text; rather, this statement is what is implied such that when al-Abharī said, "The *burhān*, which is…" it was understood to follow the implicit statement "among the Five Arts is…." Al-Fawzī, *Khulāṣa*, 137.
90. The conjunctive particle '*wāw*' further indicates an implicit statement. (See previous footnote).
91. The Arabic term *intāj* means to produce, yield, or output something. The proper form of a demonstration yields a conclusion that follows necessarily from its premises. If those premises are absolutely certain, then the syllogism will produce or yield an absolutely certain conclusion.
92. The demonstration or demonstrative proof consists of premises that are absolutely certain. Such premises may be certain due to being immediate or derived from them. Premises derived from immediate premises would themselves be reflective (*naẓarī*). Al-Fawzī, *Khulāṣa*, 138. Demonstration may also consist of any of the remaining five categories of certain premises, which will be discussed below.
93. "'Syllogism' is the close genus of 'demonstration' just as 'animal' is the close genus of 'human'." Al-Fawzī, *Khulāṣa*, 138. So, demonstration is a syllogism [genus] composed of certain premises [differentia]. A human is an animal [genus] that is rational [differentia].
94. The term "five syllogisms" refers to the five arts, namely, demonstrative argument, dialectical argument, rhetorical argument, poetical argument, and fallacious argument (which is divided into sophistry and contentious disputation).
95. The definition given of demonstration is that it is a syllogism composed of certain premises. In order to connect "of certain premises" to "syllogism" he adds the passive participle "composite" as an adjective of "syllogism."
96. This—that is his saying "of certain premises" which serves as the differentia in the definition—excludes rhetorical, dialectical, poetical, and fallacious argument.

tic, and others. His saying, "in order to obtain certainty," the aim of his mentioning it is in order for the definition to include the four causes. "Composite" signifies the formal cause by concordance [*muṭābaqa*] and the efficient cause by necessary implication [*iltizām*], which is the rational capacity.[97] "Premises" is the material cause, and "in order to obtain certainty" is the final cause.

The six categories of certain premises

(As for the certain premises, they are of six categories)[98] because the intellect's judgment of them as such [i.e., being certain propositions] is either (a) without the aid of the senses or (b) with them. The first (a):

If it does not depend on an intermediate term [*wasaṭ*] present in the mind, then it is the self-evident premises [*al-awwaliyyāt*].

If it does depend [on an intermediate term], then it is propositions whose syllogisms accompany them [*qaḍāyā qiyāsātuhā maʿahā*].

The second (b), either [the intellect's judgment of] certainty in it (i) does not rely on anything else[99] after the senses, (ii) or it does.

The first [i.e., b(i)] is the sensory premises [*al-maḥsūsāt*].

So, if it is by means of external sensation then it is observational premises [*mushāhadāt*],

and if it is by means of internal sensation, then it is introspective premises [*wijdāniyyāt*].

If it does rely [on something beyond the senses [i.e., b(ii)]], then the sense is either

97. The rational capacity is the rational self (*al-nafs al-nāṭiqa*). Al-Fawzī, *Khulāṣa*, 138.

98. There are six categories of propositions whose content is absolutely certain. A demonstrative argument, or demonstration (*burhān*), is a syllogism that consists of two absolutely certain premises.

99. H and G have "does not rely on another thing (*shayʾ ākhar*) after sensory experience," which has been adopted here, despite S, K, and T having "does not rely on a single thing (*shayʾ wāḥid*) after sensory experience." This is because, if taken to mean "a single thing," then all three additional categories of premises rely on more than a single additional thing, either hearing multiple reports, observing causal relationships multiple times, or observing the changing states of the moon. Arguably, each of these is an example of repeated observation (*takrār al-mushāhada*), and therefore not 'a single thing'. Likewise, they all require a hidden inference of some kind, either the rational judgment that a whole group could not conspire on a lie, that there is a causal relationship between the presence of X and the presence of Y, or that X causes changing states in Y, respectively. If, however, *shayʾ wāḥid* could be rendered anything or something—"does not rely on anything/something after sensory experience"—then either recension is appropriate.

the sense of hearing, which is the mass-transmitted premises [*al-mutawātirāt*], which depend on the judgment of the intellect that it is impossible for the reporters to conspire upon a lie.

Or it is other than it [the sense of hearing].[100]

So, if it relies on repeated sensory observation [*takrār al-mushāhadāt*], then it is the experiential premises [*al-mujarrabāt*].

If it relies on intuitive inference, then it is intuitively inferred premises [*al-ḥadsiyyāt*].

This is the criterion of precise [*ḍabṭ*] division not of rational exhaustiveness [*al-ḥaṣr al-ʿaqlī*].[101]

Enumerating the six categories of absolutely certain premises (*taʿdād al-yaqīniyyāt*)

To their enumeration he alludes by his saying:

(The first of them is self-evident premises [*awwaliyyāt*], such as our saying: "One is half of two" or "The whole is greater than its part.") These two judgments do not rely [on anything] except upon the conception of the two extremes [i.e., the subject and predicate]. One who falsely imagines that the part could be larger than the whole—as in the case of elephantiasis—does not comprehend the meaning of 'the whole' and 'the part'.

(And observational premises [*mushāhadāt*]), which are also called sensory premises [*maḥsūsāt*] (such as our saying, "The sun shines") so[102] that which is perceived [*al-mudrak*] is by means of sight. (And "Fire burns"), sensed by means of touch.

100. Al-Fanārī appears to be saying that propositions for which the intellect requires more than a single instance of sensory experience in order to pass judgment are either those that require additional input from the sense of hearing—in this case, hearing the same report from a whole group of people—or it requires additional input from a sense other than hearing. However, experiential premises (*mujarrabāt*) arguably could be based on the sense of hearing, such as "Listening to loud sounds leads to ringing in the ears." Here, the basis of division (*wajh al-taqsīm*) appears to break down or at least requires greater explanation, which is not apparent in the commentaries consulted for this edition.

101. *Al-ḍabṭ* implies that it this is how the number of categories was obtained but does not entail that it must be exactly six. *Al-ḥaṣr*, on the other hand, entails that the members of the division are exactly as stated, no more and no less. With that, there could be other propositions whose content is absolutely certain, which are obtained through other means. Al-Fawzī, *Khulāṣa*, 139.

102. K has *fa-l-mudrak*, while S, T, and H have *fī al-mudrak*.

(And experiential premises [*mujarrabāt*], such as our saying, "Drinking scammony purges yellow bile"), since if it did not purge it, then purging would not occur after drinking it universally or mostly, so certainty in it[103] relies on repeated observation.

(And intuitively inferred premises [*ḥadsiyyāt*]), that is, premises in which certainty is obtained by the premises and conclusions [*al-mabādi' wa-l-maṭālib*] being present to the mind in one instant, which is the meaning of intuitive inference [*ḥads*]; there is no movement [of the mind] in it [intuitive inference] as opposed to reflective thought [*fikr*], which is gradual [step-by-step] and not instantaneous. With that, people might differ in it [reflective thought] by speed or slowness, but as for intuitive inference, there is no difference except in a little or a lot, since it is instantaneous.[104] (Such as our saying, "The light of the moon is derived from the sun") by means of witnessing its different phases when near and far from it [the sun].

(And mass-transmitted premises), and they are propositions by which the intellect judges—by means of hearing[105]—because they are narrated by a group of people [*qawm*] which the intellect deems impossible to have conspired upon a falsehood. Its criterion [*miṣdāq*][106] is the obtainment of certainty, (such as our saying, "Muhammad ﷺ claimed prophecy and manifested miracles by his hand"); indeed, it is like our knowledge of distant lands and past nations.

(And *propositions whose syllogisms accompany them* such as our saying: "Four is an even number" due to an intermediate [term[107]] present in the mind, which is 'divisibility into two equal parts'). So, the mind arranges in that moment that four is divisible into two equal parts, and everything that is as such is an even number; so, four is an even number.

103. That is, certainty in scammony's purging quality relies on repeated observation.
104. Something that occurs instantaneously in one fell swoop cannot be said to differ in speed, but it can differ in quantity. So, one might have a lot of *ḥads* or a little.
105. K and T do not have "by means of hearing," but H and S do.
106. Its corroboration (*miṣdāquhu*), (i.e., that which signifies the truth of that ruling being certainly true rather than probabilistically true) is the actual obtainment of certainty not a specific number of narrators, such as four, twelve, twenty, or forty.
107. What is intended by "term" is not a single word, but rather the middle term that is quickly percieved along with minor and major terms. In this case, the middle term that serves as the intermediary is 'divisibility into two equal parts'.

Dialectical Argument (Dialectics)

(And) the second from the five arts is (dialectical argument [*al-jadal*], which is a syllogism) [this is the] genus (composed from popular premises) [this is the] differentia; [popularity] differs according to times, places, populations, and other than that.

Rhetorical Argument (Rhetoric)

(And rhetorical argument [*al-khiṭāba*], which is a syllogism composed of premises *accepted* from a person who is relied upon) such as a prophet[108] or a saint (or *supposed*) and believed in with a preponderant belief, such as "This wall is collapsing because dust is falling from it, and every wall from which dust falls is collapsing."

Poetical Argument (Poetics)

(And poetical argument [*al-shiʿr*], which is a syllogism composed of premises [in response] to which the breast expands), such as "Wine is flowing rubies,"[109] (or [from which the breast] contracts), such as "Honey is vomit-inducing bile."[110]

Fallacious Argument

(And fallacious argument [*mughālaṭa*], which is a syllogism composed of

108. Since the remaining four kinds of arguments that are listed after demonstration are, by definition, not certainty-producing, the inclusion of prophetic arguments is considered by some to be an error. Rather, prophetic arguments fall under the category of *propositions whose syllogisms accompany them*, for example:

    The judgment that wine is forbidden is a prophetic saying.
    All prophetic sayings are true.
    The judgment that wine is forbidden is true.

    Ṣāliḥ al-Ghursī, "Lecture 33," *Tasjīlāt*.

109. Claim: "Drinking wine causes happiness and energy." Proof: "Wine is flowing rubies; everything that has that quality [i.e., flowing rubies], drinking it causes happiness and energy; so, drinking wine causes happiness and energy." What becomes clear from the examples given by al-Fawzī is that the common examples of "Wine is flowing rubies" or "Honey is vomit-inducing bile" are in fact the minor premises of syllogisms whose major premise and conclusion have been omitted. Al-Fawzī, *Khulāṣa*, 143.

110. Claim: "Consuming honey causes regret." Proof: "Honey is vomit-inducing bile; everything that has this character, consuming it causes regret; so, consuming honey causes regret." Al-Fawzī, *Khulāṣa*, 143. "Vomit-inducing" (*muhawwiʿa*) can also be read as "vomitted" (*mahūʿa*).

false premises that resemble truth), while not being true, which is called sophistry (or) resembling (popular) premises, which is called contentious disputation, (or premises that are falsely imagined [*wahmiyya*]) as it is said: "Beyond the world is a limitless void." This [category], too, if the philosopher[111] is confronted with it, then it is sophistry, and if the dialectician[112] is confronted with it, it is called contentious disputation. So, fallacious argument is limited to two categories: sophistry and contentious disputation.

(The reliance), that is, that which is relied upon (is the demonstration), and nothing other than that, because obtaining true beliefs and removing[113] false beliefs is not obtained by other than it.[114]

Conclusion

(Let this be the end of the epistle in logic).[115] May Allah seal our lives with true beliefs and protect us from false beliefs, raise us among the throng of the martyrs and the righteous, and give us dwelling in the highest [ranks] of heaven with the prophets and messengers. May peace and blessings of Allah Most High be upon our master Muhammad, upon his family, and his companions all together.

Completed with the aid of Allah the All-Knowing—indeed, He is the bestower of all success and blessings—on Friday, at the time of the afternoon prayer in the month of Muḥarram in the year 811 [AH].[116] All praise is due to Allah, Lord of the worlds.

111. The philosopher (*al-ḥakīm*) is the one who deals in demonstration (*burhān*); so, if a falsely imagined (*wahmī*) premise is put before a philosopher who seeks certainty in each premise, then this would be sophistry since it resembles a truthful premise.
112. That is, one who debates only with the aim of silencing the opponent—which is the blameworthy form of debate—rather than manifesting truth, which is the aim of the praiseworthy form of debate. Al-Fawzī, *Khulāṣa*, 144. In any case, this would be called contentious disputation because dialectical disputation deals in popular premises, and as such, this would be a premise that resembles a popular premise.
113. H and K have *tazyūl*; T has *tazyīf*.
114. S has a slightly different wording from H, K, and T.
115. Each of the editions consulted for this translation have different recensions for closing prayers. K has only the closing prayers of the commentator, without a *duʿā'* attributed to al-Fanārī.
116. This last paragraph regarding the date of completion is only found in T. That it is completed at the time of the afternoon prayer rather than the evening prayer (as stated in the introduction) implies that this may be the closing prayer of a copyist rather than al-Fanārī.

Summary and Commentary

Author's Introduction

In the name of Allah, the Compassionate, the Merciful

Al-Fanārī begins his commentary praising Allah for the goodly benefits bestowed upon seekers of knowledge by learned scholars, those goodly benefits being the inquiries mentioned in their books or taken from their sayings. The learned scholars to whom he refers are those scholars who put their knowledge into action and the wise philosophers who are complete in their knowledge.[1] Al-Fanārī extends the scope of his praise to include freedom from hardships like poverty, sickness, and other tribulations whose metaphorical storm winds destroy praiseworthy virtues such as knowledge.[2] He then prays that divine mercy be sent on the generality of prophets, who were reached by the first and best of blessings, namely, faith and practice, along with the noble attributes of prophecy and messengerhood.[3] Furthermore, these prayers for mercy are especially requested for the Prophet Muhammad, our master, who is characterized by the loftiest of praiseworthy traits and was sent to the noblest of tribes, that of the Quraysh. Having sought mercy for the generality of prophets and for the Prophet Muhammad specifically, his request of mercy then extends to the family and noble companions of the Prophet, who are characterized by having been guided by the clearest proofs, namely the Quran and prophetic miracles.[4]

After offering the standard benedictions in a general format that had become the habit of Muslim scholarly authors, he then proceeds to the subject at hand, explaining first the motivation for penning this commentary which was later to become a standard text in the Ottoman syllabus. The main impetus was the request of a student or colleague to write an explanation of the valuable principles treated in al-Abharī's epistle in logic called the *Īsāghūjī*,

1. Muḥammad al-Fawzī, *Khulāṣat al-mīzān* (Istanbul: Maṭbaʿat al-Ḥājj Muḥarram Afandī, 1284 AH), 3–4; Qūl Aḥmad al-Dimashqī, *al-Fawāʾid al-fanāriyya*, 2nd ed. (Istanbul: al-Maktaba al-Hāshimiyya, 2015), 14–5.
2. Al-Fawzī, *Khulāṣa*, 4.
3. Al-Fawzī, *Khulāṣa*, 5.
4. Al-Fawzī, *Khulāṣa*, 5.

the Arabized rendition of the Greek term Isagoge. Whether the request came from a brother in religion and humanity, or a student in a residential seminary whom al-Fanārī would have seen throughout the day from morning to night in classes, prayers, and shared meals, nonetheless, the petitioner sought guidance for himself and his colleagues who were busy with the careful and assiduous parsing and perusal of the text in order to understand the author's intent, repel critiques, and correct slips of the pen.

Finding no benefit in continually putting off the requests to write this commentary on the *Īsāghūjī* with explanations of whatever busied him away from doing so or deferrals to a future date when perhaps Allah might repel those things that prevented him from answering this request,[5] al-Fanārī instead set out one morning to write his enduring commentary in a single winter's day, completing it at the call to evening prayers, with all due deference to the aid of Allah, the Most Knowledgeable King, the master who bestows all success and grants every blessing.

The Unifying Principle

Any multitude of things can be seen as a single unit due to each of its individual components sharing in a single quality. If that multitude is a pile of gold coins, they share in the qualities of being of the same ore, round in shape, stamped with symbols denoting the state that issues them as currency, being of equal weight and size, and being fit to trade for other objects of value in the marketplace. Some of these shared qualities are essential to gold coins, while others are accidental.

A science is a multitude as well. In particular, it is a multitude of inquiries united in a subject matter of which essential properties are predicated. Whether one seeks a multitude of gold coins, scientific inquiries, or anything else, one must first gain a general awareness of that essential shared quality or unifying principle that brings together the multitude of individual things under one heading as well the accidental unifying principle that indicates for what purpose that multitude is sought. For example, one first comes to know that humans are rational or risible before actually investigating each individual human's capacity to reason or laugh. With regard to the sciences, one must have a general knowledge of the subject matter and aim of any given science before gaining comprehensive knowledge of each of its inquiries

5. Al-Fawzī, *Khulāṣa*, 6.

and sub-chapters. Before studying medicine, one must know that the subject matter is the human body and the aim is to obtain good health and treat ailments.

Knowing the subject matter of a science safeguards one from missing important matters of concern to the student, and it furthermore protects him from turning his attention to matters that do not concern him. A student of Islamic jurisprudence recognizes that a proof for the impermissibility of alcohol found in the Quran is related to his studies but a discussion of best practices in urban architecture is not. Similarly, when one knows why he is studying a given science, its inquiries will become important and relevant, increasing his diligence and motivation to learn. Without knowing the aim of the science, he might see the effort expended in his studies as pointless and adrift, and, indeed, without purpose, it may be.

Why Offer the Definitions from Subject and Goal?

Al-Fanārī wrote at a stage in the development of Islamic intellectual history wherein it had become the standard practice of scholars to begin their texts by offering one of two possible definitions of the science treated therein. One definition was based on the essential unifying principle and the other on the accidental unifying principle. They also would mention the subject matter and aim of the science before delving into the specific inquiries of the science. The subject matter, aim, and definition of a science are three of the "ten points of departure" of which students should have general knowledge prior to beginning their study. In view of this, at least these three and often all ten points of departure would be listed after the standard invocation of the name of Allah, expression of praise for Allah, and request for blessings on the Prophet.

Why did it become a standard practice of the scholars to mention definitions based on one or both of the unifying principles along with the subject matter and aim of the science? Al-Fanārī explains that it is because every science is a multitude of inquiries united in an essential unifying principle that entails that these multiple inquiries are counted as components of a single science. The predominant view is that what unites these inquiries is that the grammatical subject of each inquiry is either the subject matter of the science, a subcategory of the subject matter, or an essential property of the subject matter. So, the essential unifying principle of any science is its subject matter. However, al-Fanārī describes the essential unifying principle of a science as its

multitude of inquiries' *being* the predication of essential properties to a single thing—subject matter, subcategory, or essential property—whether this unity is actual or subjective. This is not a difference in opinion over what is in fact the essential unifying principle; instead, al-Fanārī appears to be clarifying for the student how the subject matter is related to the inquiries, since inquiries are themselves questions about whether an essential property is predicated of the subject matter.

Returning to the question of why scholars mentioned definitions of a given science according to essential or accidental unifying principles, al-Fanārī continues his explanation by stating that each science's inquiries are also united by an accidental unifying principle which follows and is external to the subject matter and constitutes the aim of that science. For example, the accidental unifying principle of logic is that it is a tool or instrument used to obtain unknown knowledge through using sound reasoning from known knowledge. That is, the goal of logic is to protect one's reasoning in the process of obtaining new knowledge. Its status as instrumental tool used to obtain this goal is not studied within the chapters of logic; rather, the inquiries of those chapters cause one to obtain this aim of sound reasoning. In view of this, he describes the accidental unifying principle in the case of logic as its inquiries' *being* a tool that fulfills an aim. In simplest terms, the accidental unifying principle is the aim of the science; that is, all of its inquiries are united in fulfilling its aim.

Definition of Logic Based on the Essential and Accidental Unifying Principles

First, al-Fanārī offers two definitions based on the first of the unifying principles (the subject matter) in order to give voice to the views of both the earlier and later scholars of logic. According to the later scholars, logic is a science in which one investigates the essential properties of conceptions and assents with regard to using those conceptions and assents in order to bring the student's intellect from the known to the unknown. This definition begins with the genus of 'science' and provides as the differentia the subject matter, namely, conceptions and assents. Since sciences consist of a unified subject matter that is viewed from a particular regard, this definition also provides that regard, namely using conceptions and propositions in order to move from known conceptions to unknown conceptions—as is done in definitions—or from known propositions to unknown propositions, as is done in syllogisms. Logic on this definition is a multitude of inquiries united

in their shared subject matter, which is conceptions and assents, and as such is a science in which the essential attributes of conceptions and assents are investigated with regard to the way that those conceptions and assents serve to bring the student's intellect from the known to the unknown.

The second definition that is also based on the subject matter of logic, rather than its aim, is that of the earlier logicians. They defined logic as a science in which one investigates the essential properties of secondary intelligibles with regard to their corresponding to primary intelligibles. That is, they did not investigate secondary intelligibles with regard to their being obtained in the mind nor being psychic qualities (*al-kayfiyya al-nafsiyya*), as these essential properties do not relate to being derived from primary intelligibles. Rather, they investigated secondary intelligibles with regard to their corresponding to and being derived from primary intelligibles, such as 'genus' being derived from and corresponding to 'animal' or 'species' being derived from and corresponding to 'human'.

Al-Fanārī interjects into the definition the fact that secondary intelligibles are conceived in the mind alone and do not appertain to any matter in the extramental world, while primary intelligibles are derived from things in the extramental world. That is, one sees a human being, who has the characteristics of being a rational animal. Then, one mentally conceives of the concepts 'animal', 'human', and 'rational'. This level of mental operation is called first order thinking. Having conceived of these three concepts, the mind then extracts from them the concepts of 'genus', 'species', and 'differentia', which are second order concepts which do not correspond directly to anything in the extramental world. Rather, these second order universals correspond to the first order concepts from which they are derived; those first order concepts do, however, have a direct correspondence to things in the extramental world.

So, logic on this definition is a multitude of inquiries united in their shared subject matter, which is secondary intelligibles, and as such is a science in which the essential attributes of secondary intellegibles are investigated with regard to their correspondence to primary intelligibles.[6]

As for the definition of logic from the perspective of its aim, al-Fanārī defines logic as a set of canonical principles by which sound thinking may be distinguished from unsound thinking. In this definition, the genus is not expressed with the term "science" as it was in the previous definitions; instead, it is the term "principle," which is interpreted above as a set of multiple

6. Al-Fawzī, *Khulāṣa*, 12–4.

principles since each inquiry in the science is a single principle. As such, the term "principle" is an example of naming the whole after one of its parts, and therefore "principle" and "science" are referring to the same genus of that multitude of inquiries united in subject matter, aim, and regard. The differentia given in this definition indicates that the regard through which the set of principles is investigated is the aim of the science, namely, distinguishing sound thinking from unsound thinking. That is, these canonical principles contained in the multitude of inquiries into either secondary intelligibles or conceptions and assents are not investigated for any reason other than protecting the mind from unsound reasoning.

In summary, al-Fanārī gives the reader examples of the scholarly practice of defining a science through reference to either its subject matter or its aim. Knowledge of the subject matter of logic enters into the first category of definitions cited according to either the earlier or later logicians, respectively, while knowledge of the aim of logic enters into the second.

The Chapters of Logic

Since the aim of logic is to obtain knowledge of the validity or invalidity of thought, and thought is undertaken in order to obtain either conceptual or assentive knowledge that was unknown prior to the mind's reasoning effort, it follows that logic has two core sections, namely, conceptions and assents. Each of these two core sections have points of departure and aims, amounting to four subdivisions. The points of departure for conceptions are the five universals, while the points of departure for assents are propositions and their properties, such as opposition and conversion. Neither the five universals nor propositions are sought in and of themselves, as they do not directly lead to the goal of the science which is discerning sound thinking from unsound thinking.[7] They need to be employed via the medium of definitions and syllogisms, respectively, in order to achieve this goal. In view of this, definitions and syllogisms are investigated for their role in obtaining sound thinking and are, as such, essential topics of inquiry. Therefore, definitions are the aims of conceptions and syllogisms are the aims of assents.

In summary, the points of departure for conceptions are the five universals, while their aims are definitions. The points of departure for assents are propositions and their related properties—such as opposition and conversion—while

7. *Al-Fawzī, Khulāṣa,* 16.

their aims are the forms and moods of syllogisms. The term "syllogism" is applied by al-Fanārī to the forms and moods of arguments, but he also uses the term "syllogism" to refer to the types of arguments categorized according to the material used in their premises. In view of this, after declaring the syllogism *qua formal logic* to be the aim of assents, he then says that the syllogism *qua material logic* is divided into the Five Arts.

The Five Arts are divided based on the content of the premises of a given syllogism. A syllogism consists of premises that are either certain, probabilistic, conceded for the sake of argument, imagined in a way that expands or contracts the emotional state of the listener, or fallacious. Syllogisms with certain premises are called demonstrative arguments, while those with probabilistic premises are called rhetorical arguments. Syllogisms with conceded premises do not consider truth or falsehood and are called dialectical arguments. Those with imaginative premises are also unconcerned with truth or falsehood and are called poetical arguments. Finally, syllogisms with false premises that are made to appear certain or probabilistic are fallacious arguments and divided into sophistry and contentious disputation, respectively.

Each of the Five Arts is counted as a separate chapter, and when counted along with the four divisions—namely, the five universals, definitions, propositions, and syllogisms—the chapters of the science of logic amount to nine.

Some of the later scholars, such as Fakhr al-Dīn al-Rāzī and al-Kātibī, counted expressions as the tenth chapter of logic,[8] considering investigation into expressions relevant though preliminary to the science itself, since expressions are coined to signify those meanings contained in conceptions and assents. Since al-Abharī's aim was to give a brief glance into each of the chapters of logic in order to facilitate its study for the student intending to delve into the science of logic for the first time, he necessarily began with an introductory investigation into the five universals, including a preliminary discussion of expressions. Following the logic of the presentation of topics al-Fanārī outlined previously, al-Abharī then treats definitions, propositions, syllogisms, and, finally, the Five Arts.

8. Al-Fawzī, *Khulāṣa*, 18.

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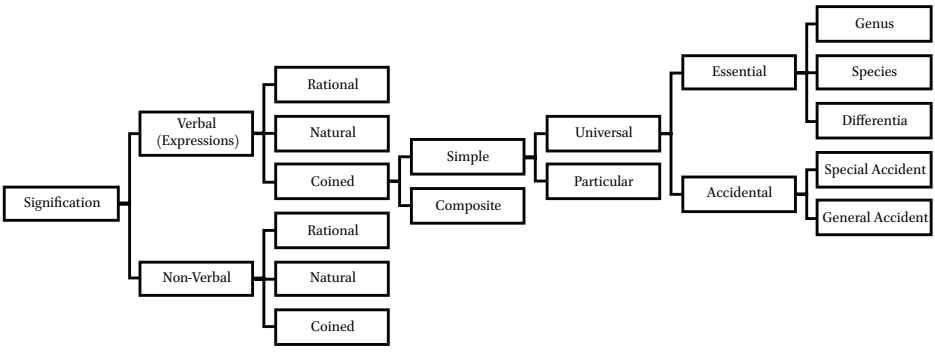
The Points of Departure for Conceptions

Why Investigate Expressions and Significations First?

Al-Abharī refers to the chapter on the five universals simply as "*Īsāghūjī*." Al-Fanārī interprets this terse statement as to denote "this is the Isagoge," meaning the chapter on the five universals. Before treating the subject of the five universals, however, a discussion of expressions is suitable. But before detailing the subject of expressions, a discussion of significations is required. The reason for this can be found in the division or classification of the five universals as subdivisions of a descending hierarchy of concepts whose top node is significations. That is, ascending from the bottom level to the top level of the division or categorization schema, al-Fanārī says that since the five universals are subcategories of 'the essential universal' and its counterpart 'the accidental universal', which are subcategories of 'the universal', itself a subdivision of 'the simple', which is a subdivision of 'the expression', it was necessary for al-Abharī to lay out the division of expressions in descending order until reaching the five universals. In order to do so, he was required to investigate and explicate the subject of expressions.



Significations

Since the subject matter of logic is meanings, whether conceptual or assentive, and meanings are understood from the significatory quality of expressions that point to those meanings, al-Fanārī explains that al-Abharī therefore initially turned his attention to mentioning the definition and logical division of significations. Since al-Abharī did not treat expressions and significations separately but rather within the chapter of the Isagoge (five universals), it is understood from this that he did not consider them to constitute a separate tenth chapter as Fakhr al-Dīn al-Rāzī, al-Kātibī, and others did. He saw them as an introduction to the science of logic but not a chapter of the science. In other words, he saw them as external to, yet beneficial for, the study of logic rather than a part of the science itself. If the subject matter of logic is either (a) conceptual and assentive meanings or (b) secondary intelligibles, then expressions with their significatory quality are neither. However, they play an important introductory role to the investigations of the science of logic.

Definition and components of signification

Since meanings are understood from expressions due to the latter's being signifiers of those meanings, it is necessary to first define significations and divide them into their various kinds. On account of the need to first define and provide a classification of significations, the author undertakes to define and divide them as follows:

Signification is when one thing, called a signifier—whether a syllogism, word, or definition—signifies another thing—whether a conclusion, meaning, or definiendum, respectively. There are two things that are known in this scenario: the first thing is the signifier and the second thing is the object of signification. When the meaning of the signifier is known, one obtains knowledge of the object of signification. If the signifier is known with certainty, then the object of signification is known with certainty or probabilistic supposition.

A signifier known with certainty that only leads to a certainly known object of signification is called a demonstrative proof, according to the theologians, or a proof, according to the logicians. If the signifier is suppositionally known, then the object of signification will be known suppositionally, that is, probabilistically. A probabilistic signifier is called a persuading proof, according to the theologians, or an indicative proof, according to the logicians. A signifier known with certainty that entails a suppositionally known object of signification is also called a persuading or indicative proof due to the inclusion of

supposition between the signifier and the signified.

Verbal and nonverbal signification

Signifiers are either nonverbal signifiers or verbal signifiers. Each category is divisible into three subcategories, namely, coined, natural, and rational. If the signifier is an expression, that is, a sound emitted from the mouth of a human being, then it is an instance of verbal signification.

If it is not a verbal signifier, that is, it is not a sound emitted from the mouth of the human being, then it is an instance of nonverbal signification. If the nonverbal signifier signifies the object of signification by means of coining, then it is coined signification. Coining—also called assignment or positing (*waḍʿ*)—is to specify one thing by another thing such that when the first thing is known then the second thing is also known. Coining with regard to nonverbal signifiers is to assign a meaning to an object, action, symbol, or the likes. For example, double lines painted on a road signify that the driver should not cross into the opposite lane. A specific hand signal serves to express a numerical value, the intention to turn left while riding a bike, or any meaning from the lexicon of English via the coined conventions of American sign language. More simply, this category includes conventionally recognized bodily indications such as pointing at an object to indicate 'that one' or 'it is over there' or the likes. Nodding the head or shaking the head are also coined bodily indications to signify affirmation or negation respectively. Signposts, like trail markers on a hiking trail, traffic lights, or the *miḥrāb* indicating the direction of Mecca are also coined symbols to signify meanings.

If the nonverbal signification is not coined to express a particular meaning, then if it is by means of a natural function of the body, then it is natural signification. For example, yellowing of the skin indicates jaundice, and blushing signifies shyness. If the nonverbal signification is not by means of intentional coinage or natural bodily function, then it is rational signification, such as the contingent universe's signifying the necessarily existent Creator.

If the signification is verbal, then if it is a term that has been coined for a specific meaning—rather than a nonsensical expression—then it is coined verbal signification. All words in a given language's lexicon are examples of coined signifying expressions, whether those terms are lexical terms inherited from previous generations or recently coined technical or culturally derived terms. Vocal utterances that are not intended to signify a meaning used in language but instead arise from the natural state of the speaker are called

natural verbal signifiers. For example, a particular cough can signify a specific ailment, such as bronchitis or whooping cough. If not by nature or coinage, then a vocal utterance may be a form of rational verbal signification, such as the sound of a voice from behind a wall's signifying the presence of the speaker who is uttering those sounds. What is signified by the vocalized sound is the existence of the speaker, not the meanings of the utterances or the natural state of the speaker.

The focus of logic is restricted to coined verbal signifiers which have been assigned particular meanings such that when the coined verbal signifier is mentioned, the meaning is understood by the listener due to his knowing the meaning that it was coined for. The coined verbal signifying expression is what is divided into the three modes of signification, namely, concordance, containment, and necessary implication. The remaining five categories of signification—natural and rational verbal signification along with coined, natural, and rational nonverbal signification—are disregarded in the following discussions. Regarding who the ultimate assigner of lexical terms is, that assignment of meaning or coinage may be directly from Allah, as in His ﷻ teaching Adam ﷺ the names of all things, or from humans in the context of language development such as devising technical terms or naming newly arisen phenomena.

Division of coined verbal signification into concordance, containment, and necessary implication

Concordance

The expression that signifies by coinage signifies the complete meaning for which the term was coined by concordance (*muṭābaqa*) since the coined expression completely corresponds to and agrees with the complete meaning for which it was coined. The term 'human' signifies 'rational animal' by concordance since 'rational animal' is the complete and essential meaning of 'human'.

Containment

The expression that signifies by coinage signifies part of the meaning for which that expression was coined by containment (*taḍammun*) if the full meaning for which the expression was coined has a composite of meanings contained within it: the term 'human' can signify either 'rational' or 'animal' depending on the context since 'human' was coined to signify the composite meaning 'rational animal'.

Clarification: In some cases, containment and/or necessary implication is not possible

However, not all terms signify a composite and divisible referent, and therefore there are some exceptions wherein containment is inconceivable. Al-Fanārī gives two examples. On example is the Euclidian 'point' which he cites as an example of simple and indivisible matters (*basā'iṭ*). Al-Fanārī also mentions the expression 'the Necessarily Existent', whose beautiful names signify His sacred entity which is free of need and transcendently above and beyond imperfection, origination, similarity, contingency, and composition. The view that al-Fanārī may be referring to is that these privative meanings—'free of imperfection, origination, etc.'—are from the perspective of negation, not the perspective of affirmation, and, as such, are not existent such that a term can signify them.[1] This is how commentators have interpreted al-Fanārī's inclusion of 'the Necessarily Existent' as an example of an expression that signifies simple and indivisible matters, though Allah is not properly referred to as simple (*basīṭ*); rather, the term 'Necessarily Existent' or any of the beautiful names of Allah signify the entity of Allah from which all similarity, contingency, and imperfection are negated.

From the discussion of simple and non-composite essences it is known that an expression that signifies a complete essential meaning by concordance will not necessarily signify by containment if that signified meaning is non-composite, since containment only occurs when the signified meaning has parts which could be individually signified. However, whenever an expression can signify by containment, it is necessarily the case that it could also signify by concordance, since whenever one part can be signified by containment, all parts could be signified by concordance. In view of this, al-Fanārī says that concordance does not entail containment, but containment entails concordance.

Likewise, an expression that signifies by necessary implication will not necessarily signify by containment, because the meaning that the term was coined for might be non-composite. That is, the implicant—which is the meaning for which the term was coined—might be non-composite, so the coined term could signify the implicate—which is the meaning necessarily implied by the implicant—without signifying a partial meaning of the implicant since, in this scenario, it would have no parts to be signified by containment. The expression which signifies a non-composite meaning for which the expression

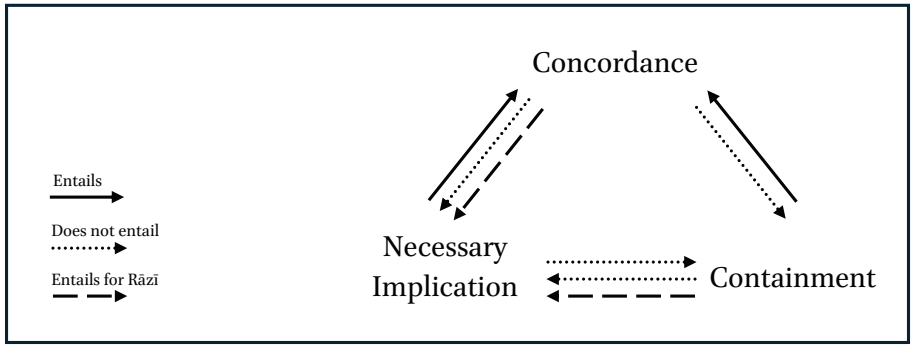
1. Aḥmad b. Khaḍir al-ʿUmarī (Qūl Aḥmad), *Ḥāshiyat Qūl Aḥmad ʿalā al-Fawā'id al-fanāriyya*, ed. Abū Jaʿfar al-Ẓāhirī (Istanbul: Dār Taḥqīq al-Kitāb, 2019), 138n.1.

was coined can signify the implicate of that meaning through necessary implication, and it can also signify the complete essential meaning through concordance, since the non-composite meaning is the complete essential meaning itself. In view of this, al-Fanārī says that necessary implication does not entail containment but it does entail concordance.

Concordance does not entail necessary implication, according to the relied-upon position, though Fakhr al-Dīn al-Rāzī held otherwise. That is, a coined expression can signify the complete meaning for which it was coined by concordance, but this does not entail that that expression will always signify an implicate. According to the validated opinion held by the majority, not all meanings for which an expression was coined will have a necessarily implied meaning (i.e., implicate). However, Imam al-Rāzī held that every signified meaning for which an expression was coined has an evident implicate in the more specific sense, the least of which would be that it is not other than it. If the coined expression 'Z' signifies the meaning 'X' by concordance, 'X' as implicant will necessarily entail the implicate 'not other than X'. So, according to al-Rāzī, one could justifiably argue that 'not other than X' could be understood through necessary implication from the coined term 'Z'.[2]

In summary, concordance does not entail containment—as the meaning for which the term was coined might be non-composite—nor does it entail necessary implication, since it is possible that a meaning for which an expression was coined lacks an evident implicate in the more specific sense (though al-Rāzī disagreed). However, containment and necessary implication both entail concordance, since containment is the signification of part of the whole meaning, and necessary implication is the signification of the implicate of the whole meaning. Finally, containment does not entail necessary implication and vice versa. As the previous examples demonstrate, some expressions signify by containment but not necessary implication (as in the case where no evident implicant in the more specific sense exists) while others signify by necessary implication but not containment (as in the case of a non-composite meaning qua implicant entailing an implicate).

2. Al-Fawzī, *Khulāṣa*, 28.



The above discussion treats instances where a coined expression that signifies by concordance lacks one or both significations by containment or necessary implication. What remains are the nearly innumerable coined expressions that signify by all three modes of signification, such as 'human' which signifies 'rational animal' by concordance, 'rational' by containment, and 'capable of writing' by necessary implication. To these the author now turns his attention.

Necessary implication

After parsing out the possibilities of singular, dual, or triple modes of signification for one coined expression from the view of one mode entailing or not entailing the other, al-Fanārī returns to the original subject at hand in al-Abharī's text which is merely to divide signification into concordance, containment, and necessary implication. In view of this, al-Fanārī describes the third mode, namely, necessary implication.

When the expression that signifies by coinage signifies a concomitant meaning external to the original meaning for which the expression was coined, yet this external meaning is mentally entailed by that original meaning, that mode of signification is called necessary implication. For example, the term 'human' signifies 'capable of writing' by necessary implication, because 'capable of writing' is mentally entailed by 'rational animal'. It is called necessary implication because when the coined signifying expression signifies a meaning that is external to the meaning for which the expression was coined, it only signifies those meanings that are mentally entailed by the original meaning. Furthermore, that mental entailment is restricted to *evident entailment by the more specific meaning*. Evident entailment does not require any proof; rather, mere conception of the two meanings—the implicant and the implicate—establishes the entailment relationship in the mind of the person conceiving

the relationship. Evident entailment that is by the more specific meaning is when mere conception of the implicant entails conception of the implicate, unlike when the implicate must also be conceived in order to establish the entailment relationship, which is entailment by the more general meaning. Necessary implication, then, is a mode of signification wherein a coined expression signifies a mentally entailed concomitant and external meaning through mere conception of the original meaning for which the term was coined.

Were it not for the stipulation of this mental entailment, then the meaning for which a given term were coined could further signify any and every external meaning; 'human' would signify 'sleeping', and 'sleeping' would signify 'human'; 'cat', 'horse', etc. and each of these expressions would in turn signify 'human'. Furthermore, without the stipulation of mental entailment, an expression could signify any arbitrary meaning unconnected to the original meaning for which the expression was coined. Rather, there needs to be a mental entailment relationship between the original meaning (implicant) and the external concomitant meaning (i.e., implicate) wherein the mere conception of the implicant mentally entails the implicate without need for further proof.

In summary, necessary implication occurs when the coined expression 'human' signifies 'rational animal' and due to context and one's understanding that rational animals are capable of writing, one understands in the context that 'human' is being used to signify 'capable of writing'. For example, if one asks, "Who wrote these words on the wall?" and receives the answer "A human," then, from context, it is understood that someone capable of writing wrote the words.

Returning to the text of al-Abharī, al-Fanārī closes the introduction to the three modes of signification with the following example: the expression 'human' signifies the complete meaning of 'rational animal' by concordance, and it signifies one of the two parts of the complete meaning—just 'animal' or just 'rational'—by containment. Furthermore, it signifies 'receptive to knowledge' and 'capable of writing' by necessary implication.

Three objections to the definitions of the modes of signification

Having introduced the three modes of signification, providing their definitions and classification, al-Fanārī then discusses three objections that are raised to the definitions given for concordance, containment, and necessary implication. The first is that the definitions are invalid because they do not sufficiently

differentiate each mode of signification from the others, and should, rather, include the stipulation "by means of coining." The second objection is that there is no need to stipulate "mentally entails" in the definition of necessary implication. The third is that 'receptive to knowledge' and 'capable of writing' are not sufficient as examples for necessary implication. Each will be addressed below in turn.

The First Objection

The first objection is that the definitions are invalid because they do not sufficiently differentiate each mode of signification from the others, and, as such, the definition of concordance could equally apply to containment and to necessary implication and vice versa. In response to this objection, a hypothetical scenario is given. In this scenario, there are three separate instances of coinage for the term 'sun'. In the first, the term 'sun' was coined to mean the celestial body itself and nothing more. In the second instance of coinage, 'sun' is coined to mean the light, and in the third instance, 'sun' is coined to mean the combination of the celestial body and the light. Given this hypothetical state of affairs, were the term 'sun' to be uttered in order to signify the light, then it would be a case of concordance in the case wherein 'sun' was coined to mean the light, and it would be containment in the case wherein 'sun' was coined to mean the combination of the celestial body and the light. It would, furthermore, be a case of necessary implication in the case wherein 'sun' was coined to mean the celestial body. That one expression of 'sun' to signify the light could be either a case of concordance, containment, or necessary implication seems contradictory according to the one who raised the objection.

In order to avoid this objection, some stipulated "by means of the coinage" in each definition as a precaution, such that the definitions would instead read as follows:

- **Concordance**: the signification of the entirety of the meaning for which an expression was coined *by means of the coinage where it is the entirety of the meaning*.
- **Containment**: the signification of a part of the meaning for which an expression was coined *by means of the coinage where it is a part of the meaning*.
- **Necessary implication**: the signification of a mental implicate of the meaning for which an expression was coined *by means of the coinage where it is a mental implicate of the meaning*.

Two responses to the first objection

However, al-Fanārī responds that this is only a matter of perspective; when a phrase means one thing from one point of view and another thing from another point of view, there is no need to include in one's definitions the stipulation of perspective or viewpoint. He offers the example of the definitions of universals wherein the logicians intended but did not mention viewpoints in their definitions of genus, species, differentia, special accident, and general accident. It is possible for one thing—for example 'colored thing'—to be a genus with regard to 'black', a species with regard to 'possessor of modality', a differentia with regard to 'solid', a special accident with regard to 'body', and general accident with regard to 'animal'. Just as the logicians deemed it sufficient to intend but omit mention of viewpoint in their definitions of the five universals, so too al-Abharī, al-Fanārī argues, deemed it sufficient to intend but not mention stipulated viewpoints in his definitions of the three modes of signification.

Al-Fanārī's second response to the objection that the definitions of the three modes of signification invalidate each other is that *the determination rendered consequent to a derived term indicates the causal influence of the source term.* That is, when a determination—such as a legal ruling, act of naming, or otherwise—is placed after a derived term in a sentence, that indicates that that determination was originally applied to the source term, and that determination follows from the source term to the derived term, even if the derived term may be truncated or in a different form. The following Quranic verse exemplifies this principle: "The male thief (*sāriq*) and the female thief (*sāriqa*), cut their hands." The determination is the legal ruling of cutting and the cause of that ruling (*ratio legis*) is theft (*sariqa*). The determined ruling of cutting follows from "thief" since "thief" derives from "theft" whose ruling is cutting.

When this principle is applied to the content of the definition of concordance, for example, then one sees that the phrase "The coined signifying expression [i.e., the expression that signifies by coinage] signifies the complete meaning for which the term was coined by concordance" is derived from the longer phrase "the signification by means of coining for the complete meaning for which the term was coined." This longer phrase is the reason (*'illa*) that such a signification is named "concordance" even though it has been truncated into the derived expression "coined indicating (expression)." This latter truncated expression is derived from the longer source or root expression, and therefore

the power of that source expression remains in its truncated derivation. Since the determination of naming this mode of signification "concordance" is mentioned after the derived phrase—just as the ruling for theft is mentioned after the derived term "thief"—then abovementioned principle regarding the causal influence of the source term on determination applies. Therefore, the shorter phrase carries the full meaning of the original, and there is no need to add "by means of the coinage" to the definition for it is found explicitly in the source phrase even though it is less explicit in the derived phrase. In view of this, the objection that definition is not sufficiently inclusive or exclusive is further rendered invalid through reference to a linguistic principle. The same logic applies to the definitions of containment and necessary entailment, as is found in the commentaries.[3]

Source Term or Phrase	**Derived Term or Phrase**	**Determination**
Theft	Thief	Cutting
Signification by means of coining of the complete meaning for which it [the expression] was coined…	Coined signifying [expression] for the complete meaning for which it was coined…	Signifies by "concordance" (i.e., the determination is naming the mode of signification "concordance")

In summary, the determination in the example of defining modal signification is the *act of naming* these modes of significations either "concordance," "containment," or "necessary implication." The derived phrase is "coined signifying (expression)…" (*al-dāll bi-l-waḍʿ…*). Its source phrase is "the signification by means of coining of the complete meaning for which it [the expression] was coined" or "the signification by means of coining of part of the complete meaning for which it was coined" or "the signification by means of coining of that which is necessarily implied by the complete meaning for which it was coined," respectively. So when the author used 'the coined indicating (expression)…' in the definition of concordance, containment, and necessary inference, it was derived from the fuller statement "the signification by coinage for…." This fuller statement is the cause (*ʿilla*) for naming this signification "concordance," "containment," or "necessary implication."

3. Al-Fawzī, *Khulāṣa,* 32; Qūl Aḥmad, *al-Fawā'id*, 35–7.

Al-Fanārī has responded to this objection from two angles. The first is the principle that for something whose definition can change according to viewpoint, that viewpoint can be intended but unstated in a definition, as logicians did in their definitions of the five universals. The second angle from which he responds is the principle that a determination that is stated after a derived term or phrase is causally resultant from the determination applied to the source term or phrase. With these two principles applied, the definitions are expressed more clearly and concisely. Were these principles not applied, al-Abharī would have been required to say: Signification by means of coining *for* the complete meaning for which the expression was coined *of* the complete meaning for which the expression was coined signifies the complete meaning for which the meaning was coined by concordance from the viewpoint that it signifies by means of coining for the complete meaning for which it was coined of the complete meaning for which it was coined.[4] Some of the repetition can be reduced to pronouns whose referents need to be carefully identified by the reader; nonetheless, without applying the two principles to which al-Fanārī refers, the fully exclusive and fully inclusive definition stated as such would be difficult for the beginning student for whom al-Abharī penned his introductory text.

The Second Objection

The second objection is that there is no need to stipulate "mentally entails" in the definition of necessary implication because doing so excludes extramental entailment. That is, there was no need for al-Abharī to qualify the statement "signification by necessary implication…" with "mental entailment" when he said "…that which is entailed by it—in the mind—by necessary implication…." Furthermore, the claimant adds that the aims of stipulating entailment are two. The first is establishing the validity of transference from the original coined meaning to its implicate, and the second is regulating its transference to a valid implicate. These two conditions can be met, says the claimant, by either mental entailment or extramental entailment. Furthermore, he claims that if it were not the case that these two goals of entailment could be obtained through either mental or extramental entailment, then entailment would not be entailment, and its stipulation in the definition of necessary implication would be null.

4. Qūl Aḥmad, *al-Fawā'id*, 36–7.

Response to the second objection

Al-Fanārī responds: We do not submit to the claim that the two goals of stipulating entailment in the definition are obtained through extramental entailment, because mental entailment is the implicate's being such that when the implicant is conceived, the conception of the implicate is entailed, whereupon the transference from the meaning for which the expression was coined to the implicate is actualized. Extramental entailment, however, is the implicate's being such that when the implicant is actualized in the extramental world, the actualization of the implicate in the extramental world is entailed, but the mind's movement from the implicant to the implicate is not necessarily entailed by that extramental actualization.

It is possible that mental conception of 'snow' leads to the mind's moving through necessary implication to 'whiteness', depending on context. With extramental entailment the snow actually occurs in the extramental world and whiteness also occurs with it. When the implicate is whiteness, then it might be both mentally entailed and extramentally entailed. This would seem to support the objection of the claimant. However, al-Fanārī brings the example of the term 'blind' which mentally entails 'sight' but does not extramentally entail 'sight'. That is, the conception of 'blind' produces in the mind the conception of 'sight', but actual extramental realization or occurrence of blindness in one individual's right eye would never entail the actualization of sight in that same eye since sight and blindness are mutually exclusive. Even the example of conception of 'snow' necessarily implying through mental entailment 'whiteness' in one context might not hold in another context where 'slippery roads' is necessarily implied by 'snow' through mental entailment but not through extramental entailment, as when the snow is light and the pavement's temperature is above freezing. In view of this, even though there might at times be a correspondence between rational and extramental entailment, since there are examples wherein it is logically and empirically impossible for them to correspond, then extramental entailment cannot be made a condition of necessary implication.

The Third Objection

The previous two objections to al-Abharī's treatment of the three modes of signification were directed at the definitions themselves, whereas this objection is restricted to the examples given for necessary implication, not the

definition itself. The objection is that the two examples given for that which is signified by necessary implication (*al-madlūl bi-l-iltizām*)—namely, 'receptive to knowledge' and 'capable of writing'—are invalid, as mere conception of 'human' does not instantly entail conception of either of these two. Rather, some thought must go into these examples before one realizes they are in fact rationally entailed by the term 'human'. That the mental entailment of 'receptive to knowledge' or 'capable of writing' does not occur by mere conception of 'human' is cited as evidence that necessary implication has not occurred, implying that such immediacy of entailment is a condition for necessary implication. As such, if this critique were to hold, then the examples given by al-Abharī would be invalid as they would not actually exemplify necessary implication. Instead, it would be better to use the example of the evenness of two. Better still, it would have been better to use the example of blindness necessarily implying sight.

Response to the third objection

One quick and simple response is that al-Abharī was giving two hypothetical examples merely for the sake of demonstrating the concept of necessary implication, not as actual examples where immediate mental entailment occurs upon mere conception of the terms. The glossators mention some efforts to defend one or both examples as actually producing immediate mental entailment; however, al-Fanārī offers a defense of these two examples from another angle. He does so by reference to the different types of entailment:

> Entailment (*luzūm*) is of two categories:
>
> 1. Evident (*al-luzūm al-bayyin*…)
>   a. by the more general meaning (*al-luzūm al-bayyin bi-l-maʿnā al-aʿamm*), which requires that both the implicant and implicate are conceived and their entailment relationship is contemplated.
>   b. by the more specific meaning (*al-luzūm al-bayyin bi-l-maʿnā al-akhaṣṣ*), which is where the implicate is such that mere conception of the implicant results in conception of the implicate (but not vice versa).
> 2. Non-evident (*al-luzūm ghayr al-bayyin*)

The gist of the argument is that al-Abharī's definition of necessary implication is derived from the definition of mental entailment (*al-luzūm al-dhihnī*) given in al-Fanārī's response to the previous objection. That is, mental entailment is when the implicate is such that when the implicant is conceived, so too is the

implicate. This definition of mental entailment is based on (1b) above, namely, that mental entailment occurs through evident entailment by the more specific meaning. In other words, mere conception of the implicant leads to conception of the implicate without any additional thought. However, al-Abharī's examples of receptivity to knowledge and writing are based on evident entailment by the more general meaning (1a above): 'capable of writing' is necessarily inferred from 'human' upon conception of the implicant (*malzūm*) along with the implicate (*lāzim*) and the nexus between them (*nisba*), whereupon one arrives at conviction that there is a relationship of entailment between the two terms. What follows from this is that necessary implication can occur through both types of evident entailment—by the more general (1a) and more specific (1b) meanings—and not just via the more specific meaning (1b) as the objector's claim suggests. Necessary implication through evident entailment by the more general meaning requires more conception and contemplation, yet it still yields conception of the entailed implicate. Al-Fanārī justifies al-Abharī's having based his definition on the more specific meaning by saying that stipulating the entailment by the more specific meaning necessitates the more general meaning, as the more specific cannot be actualized without the more general. That is, anytime there is a more specific meaning, it is in relation to a more general meaning. As such, affirming a more specific meaning entails the existence of a more general meaning. Therefore, the more general is also a condition of the validity of mental entailment between the implicate and implicant. As such, al-Abharī's offering 'receptive to knowledge' and 'capable of writing' as examples of necessary implication is valid, even if it would have been clearer to use the example of blindness and sight.

Finally, al-Fanārī mentions that, while use of the evident entailment by the more general meaning for the purpose of giving a representative example of necessary implication is valid—thereby refuting the objection under consideration—as for whether necessary implication through evident entailment by the more general meaning is even sufficient for the acceptance of necessary implication having occurred, then this is another matter of investigation in which there is disagreement between Imam al-Rāzī and the majority of scholars, as discussed in the longer commentaries. If al-Rāzī's view that the evident entailment from the more general is sufficient to achieve necessary implication, then al-Abharī's use of evident entailment from the more general to provide examples for his definition would be valid. Whether or not one agrees with al-Rāzī does not impact the defense of al-Abharī's examples,

according to al-Fanārī, though not all commentators agreed.[5]

Categorization of Expressions

Simple and composite expressions

After discussing the subject of signification in general and explaining the three modes of coined verbal signification in particular—concordance, containment, and necessary implication—al-Fanārī follows al-Abharī to a discussion of the division of expressions into two categories with regard to their composition. Expressions are either simple (that is, non-composite) or composite.

Simple expressions

Simple expressions are those whose individual parts are not intended to signify part of the essential meaning signified by the expression. So were one to parse out each of the two syllables of the word '*insān*', neither of those two syllables carries an independent meaning that points to part of the essential meaning of the term: '*in*' does not mean 'rational' and '*sān*' does not mean 'animal'. The same applies to each letter of the word '*insān*': '*i*' does not mean 'rational' and '*s*' does not mean 'animal'. This definition of simple expressions is more general than the following five stipulations:

1. Neither the expression nor the meaning has parts, such as the interrogative particle *alif* (*hamzat al-istifhām*): it is a non-composite expression with a non-composite meaning.
2. Or the expression has a part but its meaning does not, such as the expression 'dot': it has parts in that it is constructed of the letters 'd', 'o', and 't', but it signifies something non-composite, namely, a dimensionless geometric point.
3. Or the expression has parts and the meaning also has parts, but the parts of the expression do not point to parts of its meaning, such as 'human', since the 'h', for example, does not signify 'animal' or 'rational'.
4. Or the expression has parts and the meanings has parts, and part of the expression signifies part of those meanings, but those meanings are not intended by the signification, such as the expression "Abdallāh' as a proper name: neither the meaning of 'worshiper' (*'abd*) or the

5. Qūl Aḥmad, *al-Fawā'id*, 39–40; Qarah Khalīl, *Ḥāshiyat Qūl Aḥmad*, 171.

Divine (*Allāh*) are intended as part of the essential meaning of named individual. While the meaning of the name is 'worshiper of Allah' or 'servant of Allah', as a proper name, its essential meaning is a specific rational animal possessing various individuated characteristics like height, weight, DNA, etc.

5. Or the expression has parts and meanings have parts, and, unlike the example above, those parts signify parts of its essential meaning, but their signification of those essential meanings is not intended, such as 'Rational Animal' as a proper name: neither 'rational' nor 'animal'—the two parts of the essential meaning of 'human'—are intended by this proper name. Unlike the case of ʿAbdallāh, a person named Rational Animal has a composite proper name whose individual parts signify parts of the essential meaning of his humanity—'rational animal' with specific individuated characteristics—but his essential meaning was not intended when given this name. This is because the proper name is a kind of name by which only the specific individual is intended without consideration of the essential meaning of his entity. Al-Fanārī points out that if the one designated with this proper name were other than a rational animal, such as a tree or a stone, then the state of 'Rational Animal' being a proper name would not change. Likewise, if a human were given the name 'Inanimate Object' the lack of correspondence of these two terms to his essential meaning would not change the fact that it is a proper name.

Therefore, the simple expression is of the five types mentioned above. What all share in common is that parts of their expressions are not intended to signify parts of their essential meanings. It is important to note that the fourth and fifth categories demonstrate that even proper names whose parts signify parts of a composite meaning—such as ʿAbdallāh, Rational Animal, or Qūl Aḥmad—are nonetheless counted as simple expressions, because, as proper names, the parts of their expressions do not signify parts of the intended signified meaning, namely, the individual who is given that proper name.

Composite expressions

As for composite expressions, they are words whose parts are intended to signify part of the essential meaning. For example, 'stonethrower' can be divided into two parts: 'stone' and 'thrower.' Each part indicates part of the essential meaning of 'a thrower of stones'. What is intended by 'thrower' is the entity of one from whom the act of throwing emerges, and what is meant by 'stones'

are specific physical bodies.

A composite expression is that wherein the opposites of five previously mentioned stipulations are realized:

1. The expression has parts.
2. Its parts have meanings.
3. Its meaning has parts.
4. Its parts signify parts of its meaning.
5. Its signification of those parts of its meaning is intended.

Objection to the ordering of definitions for simple and composite expressions

However, questions about the definition inevitably arise. In particular, one might ask, Why was the definition of 'simple' put before 'composite'? 'Composite' is existential—since it possesses all five of the previously mentioned stipulations—and should therefore be defined before 'simple', which is privative or nonexistential, in that the five stipulations are not realized.

In other words, simple expressions are defined through privation; they do not have parts, or if they do, they do not have meanings, or if they have meanings, those meanings do not have parts, or if those meanings have parts, they are not parts of the essential meaning, or if they are parts of the essential meaning, they are not intended by the signified expression's parts. The questioner assumes that there is a principle of etiquette regarding the ordering topics and their definitions. That principle is that something existential in which certain stipulations are met and affirmed should be introduced before something nonexistential wherein those stipulations are not met or affirmed.

Response to the objection

Al-Fanārī concedes that this etiquette of ordering topics holds true when listing definitions; one begins with existential definitions before nonexistential definitions. However, this rule of etiquette does not apply, as al-Abharī is dividing and categorizing entities (*dhawāt*), not meanings (*mafhūmāt*), and therefore must start with the parts before listing the composite wholes. Al-Abharī's primary goal is classification, not definition. Entities are classified, whereas essential meanings are defined. He is classifying expressions—which are entities (*dhawāt*)—and not producing an ordered list of definitions—which are essential meanings (*mafhūmāt*)—since they will be contained within the

classification. Thus, he begins his division with simple expressions because they are the building blocks of composite expressions.[6]

The subject matter of logic is not existential entities such as expressions but rather meanings. The forthcoming classifications of the simple and the composite, the universal and the particular, and the essential and the accidental, are, in reality, usually presented firstly and essentially as those of essential meanings (*mafhūm*) and secondarily and accidentally as classifications of the expression. By dividing the *expression* into these categories, al-Abharī has thereby named the signifier—expressions—with the name of the signified—essential meanings—except that he presented a metaphorical classification of expressions rather than essential meanings to ease the beginner into the study of meanings. The assumption here is that the young madrasa student has studied several works on morphology and syntax whose subject matter is the expression, and the presentation of a metaphorical division of expressions will serve as a bridge for the student as he progresses from the study of expressions to the study of meanings, especially secondary intelligibles.

Universals and Particulars

The simple coined signifying expression (*al-lafẓ al-mufrad*) is either universal or particular.

Definition of the universal

The universal is a simple coined signifying expression whose essential meaning when merely conceived in the mind does not prevent a multitude of particulars from sharing in that meaning. When the meaning of the term 'human' is conceived in the mind, that meaning is not prevented from applying to more than one individual. The essential meaning or quiddity of 'human'—'rational animal'—applies to all particular instances of humans, whether past, present, future, or merely imagined.

A term's meaning may be prevented from applying to a multitude of things by way of either

1. mere conception of that meaning in the mind, in which case it would be a particular (*juz'ī*)
2. a rational proof for its oneness and non-multiplicity, such as 'the Necessarily Existent'

6. Al-Fawzī, *Khulāṣa*, 40.

3. looking to its state in the extramental world, such as the 'nonexistent thing' or 'the sun'

Prevention of application to a multitude by mere (1) conception of the meaning: The particular

If mere conception of the meaning of a term prevents it from applying to a multitude of things, then it is a particular (*juz'iyyun*) and not a universal. For example, the mere conception of the meaning of the proper noun 'New York City' prevents it from applying to any other particular instance of the universal 'city'.

As for the other two instances of prevention of a term's meaning's applying to a multitude, they are still universals, as mere conception does not lead to the prevention of shared application; rather, some additional variable such as a rational proof for its oneness or looking to the state of things in the extramental world will prevent it from applying to a multitude of things, as discussed below. In view of this, al-Fanārī lays out the argument for their being considered universals, saying, "…even if it is prevented with respect to a rational proof that demonstrates its oneness…or with respect to viewing it from the perspective of its external existence…."

Prevention due to (2) a rational proof for oneness

Al-Fanārī gives 'the Necessarily Existent' as an example of prevention due to a rational proof of oneness—the term 'Necessarily Existent' signifying a universal concept rather than being a proper name—which can only be applied to the Necessarily Existent Creator upon whom all contingent things rely. While mere conception of the term does not prevent it from applying to a multitude of hypothesized examples, when this conception is accompanied by the rational proof for the oneness of the Necessarily Existent, then that proof prevents the application of the essential meaning to a multitude, for there can be only one Necessarily Existent.

Prevention due to (3) looking to its state in the extramental world

As for the instance of prevention of a term's meaning applying to a multitude of things which occurs through looking to its state in the extramental world, al-Fanārī informs us of two types:

Universal with no existent particulars: The first is something that has no external existence and whose existence is in fact rationally impossible, such

as 'God's partner' (*sharīk al-Bārī*) or 'the no-thing' (*al-lāshay'*). The mere conception of these concepts before considering the rational proofs for their nonexistence does not prevent them from being applied to a multitude of hypothesized and imagined particulars, and they are therefore universals, despite their particulars' being nonexistent in the extramental world due to their being rationally impossible. So, these concepts are prevented from being applied to a multitude of actual things existing in the extramental world yet not to imagined hypothetical particulars. Al-Fanārī does not mention the case of the rationally possible yet actually nonexistent particulars of the genus of fictional entities such as the phoenix or unicorn, but the argument would apply as well. While mere conception of 'phoenix' does not prevent the application of that concept to a multitude of possible and imagined particulars, the fact that their state in the extramental world is that of nonexistence entails that the application of this meaning to actual extramental particulars is prevented due to there being no phoenixes in the world. Regardless of rational possibility or impossibility, the deciding criterion here is considering the state of things in the extramental world: do the particulars of a given universal exist extramentally or not? If not, then the universal concept is prevented from applying to a multitude, as no particulars exist.

Universal with only one existent particular: The other instance of prevention of a concept's applying to a multitude of things which occurs through looking to its state in the extramental world is something that has only one actual existent particular. The sun—from the perspective of a person on earth who has not witnessed other stars with orbiting planets—is defined as 'the daytime celestial body' (*al-kawkab al-nahārī*). The concept 'sun' is prevented from applying to a multitude of actual existent things, but additional particulars who share in its essential meaning are rationally possible though nonexistent.

The benefit of the qualification by 'mere conception' in the definition of the universal

1. The root of the definition of the universal is "that whose essential meaning is not prevented from sharing in application to a multitude of things."[7] How-

7. This likely begins with Aristotle, though this root definition is negational rather affirmational. See chapter 7 of *De Interpretatione*: "that which is by its nature predicated of a number of things." Aristotle, *Categories and De Interpretatione*, trans. J. L. Ackrill (Oxford: Clarendon Press, 1963), 47. Also see Ibn Rushd on Aristotle, where the universal is "*aladhī min sha'nihi an yuḥmala 'alā akthara min wāḥid*." Abū al-Walīd b. Rushd, *Talkhīṣ kitāb Arisṭūṭālīs fī al-'Ibāra*, ed. Muḥammad Salīm Sālim (Cairo: al-Hay'a al-Miṣriyya al-'Āmma

ever, this does not distinguish between that essential meaning as manifest in the extramental world—such as the animality and rationality of human beings—and the conception of these quiddative terms in the mind (e.g., 'rational animal'). If we can look to the extramental world to see if this essential meaning is prevented or not, then in certain instances we will see that there are no particulars in the extramental world, as in the case of 'the nonexistent thing' and 'God's partner'. This state of there being no particulars prevents the concept from being applied to a multitude extramentally, and therefore that prevention of application excludes 'the nonexistent thing' and 'God's partner' from being universals and entails they are particulars.

This definition also does not ensure that universal concepts such as 'the nonexistent thing' and 'God's partner' are included under the universal; instead, it relegates them to the category of the particular since their state in the extramental world is that of nonexistence. There are no particulars, so the terms are prevented from applying to a multitude due to their state in the extramental world. Likewise, the sun only has one instance in the extramental world, so the concept 'sun' is prevented from applying to a plurality due to its state in the extramental world, that of being only one and not many.

This root definition also does not sufficiently include 'Necessarily Existent' as a universal and rather relegates it to the category of particular, since 'Necessarily Existent' is prevented from applying to a multitude due to a rational proof (*burhān*) for its oneness.

Therefore, stipulative terms are required in order to keep these four examples—'sun', 'God's partner', 'the nonexistent thing', and 'Necessarily Existent'—included under the universal and not the particular.

2. Adding "conception": "the universal is that thing the conception of whose essential meaning is not prevented from sharing in application to a multitude of things." By using the term "conception" we ensure broader inclusion under the definition of universal. Those hypothesized examples of universals whose state of existence in the extramental world is that there is one or no

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li-l-Kitāb, 1978), 55. I am indebted to Davlat Dadikhuda for bringing the Aristotelian and Farabian roots to my attention. What remains to be traced is the development from al-Fārābī's affirmational definition—"…that applies to more than one"—to al-Abharī's negational definition—"…does not prevent a multitude of particulars from sharing in that meaning"—replete with stipulations that include those four previously discussed universals (the Necessarily Existent, God's partner, the no-thing, and the sun) that would otherwise be excluded form Aristotle and al-Fārābī's definitions. In other words, how did we get from al-Fārābī to al-Abharī?

particulars remain universals according to this second definition because we have limited the scope of preventatives by only considering conceptual preventatives. The term "conception" excludes looking to anything having to do with the actual state of affairs in the extramental world because conceptions are mental phenomena, not extramental phenomena. However, adding the term "conception" does not exclude other conceptual phenomena which may prevent application of a term to a plurality of things, such as the rational proof (*burhān*). Rational proofs are conceptual, not extramental, entities; specifically, they are syllogisms consisting of premises whose material are drawn from the six sources of rationally certain judgments, as discussed later in the text. Rational proofs are conceptual and still wield preventative power, as in the case of the rational proof for oneness (*burhān al-waḥdāniyya*). Mere conception of 'Necessarily Existent' does not in and of itself prevent it from being applied to a multitude, but when the syllogism consisting of rational premises known as the rational proof for oneness is conceived in the mind, then the term is prevented from applying to a multitude. Extramental preventatives are excluded in this second definition, yet any conceptual preventative may prevent a term from applying to a multitude, and therefore the definition still does not sufficiently include all relevant concepts (*ghayr jāmiʿ li-l-afrād*).

It may not be clear from the phrasing "…the conception of whose essential meaning…" that one might conceive of something other than essential meanings, such as rational proofs. Commentators such as al-ʿImādī note that the apparent meaning of al-Fanārī's statement is that the conception is the preventor of shared application (*māniʿ al-sharika*); however, the ascription of preventative power to the conception is metaphorical. In view of this, one might mistakenly assume that one can conceive of the essential meaning along with a rational proof and thereby prevent application of a concept such as 'Necessarily Existent' to a multitude. Rather, it is the essential meaning itself (*al-mafhūm*)—by means of having been conceived—that is the causal agent, the preventer of application or non-preventer. So, to make clear that the essential meaning when conceived in the mind is the sole agent of prevention considered in distinguishing universals from particulars, al-Abharī adds "mere" to indicate that the essential meaning when conceived in the mind is conceived alone, without any rational proofs or considerations of the extramental world; the essential meaning alone—when conceived in the mind—will prevent or not prevent the application of a term's meaning to a

multitude of particulars.[8]

3. Adding "mere": "the universal is that thing the mere conception of whose essential meaning is not prevented from sharing in application to a multitude of things." By using the term "mere," al-Abharī ensures the inclusion of the universal 'Necessarily Existent' is returned to its rightful category of universals. The term "mere" does so by limiting the scope of conception to just that of essential meaning and not other conceptual acts, such as the rational proof of oneness. The mere conception of the essential meaning is to conceive 'rational animal' and not to consider if there are rational animals in the extramental world or whether it is rationally possible for them to exist at all, as one or a plurality: it is merely to conceive 'rational animal'. Likewise, 'sun' is conceived merely as 'daytime celestial body' with no consideration of whether such a body is rationally possible or whether it exists in the extramental world singularly or plurally. The same logic applies to the other examples. Mere conception of the meaning limits the scope of this mental process such that only two possible outcomes exist: either the mere conception of the meaning prevents that meaning from applying to a multitude or it does not.

Outlining the prevention via rational proof and prevention via consideration of existence in the extramental world is intended to demonstrate that the definition given by al-Abharī is sufficiently inclusive of all possible members, including the universals that do not have a multitude of existent particulars (such as the Necessary Existent, God's partner, the no-thing, and the sun). Furthermore, al-Fanārī defends al-Abharī's definition's ensuring the exclusion of these aforementioned examples from the definition of particulars.

The qualification by 'essential meaning' in the definition

After defending the inclusivity and exclusivity of al-Abharī's definition of universals, al-Fanārī completes the discussion with a terse statement that mentioning the essential meaning (*al-mafhūm*) does not lead to the absurd redundancy of saying that "there is a meaning for a meaning."

Al-Abharī states:

> The simple (*al-mufrad*) is either a universal—and it is that thing the mere conception of whose essential meaning (*mafhūm*) does not prevent the occurrence of shared application (*al-sharika*)…

8. Qūl Aḥmad, *Ḥāshiyat Qūl Aḥmad*, 184.

> The objection is raised that the pronoun in "whose essential meaning" returns to a meaning since simple universals are intelligibles (*maʿqūlāt*). After all, logic is the study of conceptual intelligibles and assentive intelligibiles (*al-maʿqūlāt al-taṣawwuriyya wa-l-taṣdīqiyya*), and universals are a category of conceptual intelligibles. To say that the definition of a universal is that it is a conceptual intelligible wherein mere conception of its meaning does not prevent the occurrence of shared application is the same as saying that a universal is a meaning wherein mere conception of its meaning does not prevent the occurrence of shared application.

By interjecting the word "expression" into al-Abharī's definition, al-Fanārī has already reminded the reader that al-Abharī previously mentioned that he was classifying expressions and not intelligibles:

> (The simple) *expression* (is either a universal—and it is that thing the mere conception of whose essential meaning…)

This would seem sufficient, so why does al-Fanārī interject the defense that mentioning the essential meaning does not entail a meaning for a meaning? This seems to be rooted in an ongoing misunderstanding rooted in the fact that both the conceptual intelligible and the expression may be called universals. Therefore, we see that al-Abharī gives a classification of expressions and divides them into universals and particulars, whereas al-Kātibī gives a classification of essential meanings (conceptual intelligibles) in his primer on logic entitled *al-Shamsiyya*.

The matter becomes clearer[9] in al-Jurjānī's gloss on Quṭb al-Dīn al-Rāzī's commentary of the *Shamsiyya* of al-Kātibī. Al-Kātibī's text is explicitly based on a classification of essential meanings (*mafhūm*). As for the expressions that signify the essential meanings, they are incidentally (*bi-l-ʿaraḍ*) called universals and particulars. Al-Kātibī says,

> Every essential meaning (*mafhūm*) is either particular if mere conception of it prevents the occurrence of shared application of it, or it is universal if it is not prevented as such; while the expressions that

9. The following paragraphs on al-Jurjānī, Quṭb al-Dīn al-Rāzī, and al-Kātibī were originally excerpted from an earlier draft of this work and included in my article "Defending Definitions: The Tools of Disputation in the Logic of al-Fanārī," wherein I treat this issue in greater depth.

> signify them [i.e., universals and particulars] are incidentally [also] called universal and particular.[10]

Quṭb al-Dīn al-Rāzī adds some useful explanations, including the definition of meanings (*maʿānī*) as "the mental conceptions (*al-ṣuwar al-dhihniyya*) with regard to expressions being coined for them" and essential meanings (*mafhūmāt*) as 'that which is obtained in the mind', and he explicitly states, "Essential meanings are meanings" (*al-mafḥūm huwa al-maʿnā*).[11]

Additionally, he states,

> In some manuscripts, one finds "the mere conception of whose [the *mafhūm*'s] meaning (*maʿnāhu*)," and this is inattentiveness (*sahw*), for if that were the case then a meaning would have a meaning (*la-kāna li-l-maʿnā maʿnan*) because essential meanings are meanings (*al-mafḥūm huwa al-maʿnā*).[12]

Al-Jurjānī closes the discussion with the following:

> The origin of this inattentiveness is that some might attribute 'universal' and 'particular' to the expression, even if incidentally, saying, "Regarding the expression, either it is the case that mere conception of its meaning (*maʿnāhu*) prevents the occurrence of shared application with regard to it, and that is the particular, or it does not prevent that, and that is the universal."[13]

In al-Jurjāni's statement, we see explicitly that the pronoun "its" refers directly and clearly back to "the expression," validating al-Fanārī's argument and providing clearer context for the objections and responses that appear to have occurred over the generations.

Definition of the particular

The simple coined signifying expression is either universal, as described above, or particular. The particular is that expression wherein mere conception of the essential meaning for which the term was coined prevents the application of that meaning to a multitude of instances. For example, the proper name

10. Quṭb al-Dīn al-Rāzī, *Taḥrīr al-qawāʿid al-manṭiqīyya fī sharḥ al-Risāla al-shamsiyya*, ed. Muḥsin Bīdārfar (Qom: Intisharāt Bīdār, 1426 AH), 124.
11. Al-Rāzī, *Taḥrīr,* 124–6.
12. Al-Rāzī, *Taḥrīr*, 126.
13. Al-Rāzī, *Taḥrīr,* 126n.1.

'Zayd' signifies one individual person named Zayd when the essential meaning 'Zayd' is conceived. The essential meaning 'Zayd' is Zayd's essence (*dhāt*) plus the specific individuating characteristics that differentiate Zayd from all other human beings. By *essence*, what is intended is the quiddative meaning 'rational animal', which Zayd shares with all other humans, and the specific characteristics are all his other qualities—appearance, personality, voice, etc.—that differentiate the conception of that specific Zayd from any other Zayd, ʿAmr, Bakr, etc. When the combination of essence and specific characteristics are merely conceived in the mind, the conception of that conglomerate of meanings prevents their combined application to any individual other than that one person named Zayd. This is akin to using the demonstrative pronoun 'this' to differentiate between the universal meaning 'book', which applies to all existent and nonexistent written works contained between two covers, and the specific instance of a book intended when one says 'this book'. The conception of the combination of the meanings of 'this' and 'book' is like the conception of the combination of the meanings 'rational animal' and all of Zayd's specific characteristics. These conceptions of a combination of a universal quiddative meaning ('book' or 'rational animal') and specifying meanings ('thisness' or Zayd's specific characteristics) prevent them from shared application to a multitude and are thus particular rather than universal meanings. The mere conception of these combined meanings is in contrast to the mere conception of the quiddity, which is the actual species. Restated, conception of 'rational animal' plus Zayd's specific characteristics is the essential meaning of 'Zayd', whereas conception of 'rational animal' is to conceive of the essential meaning of the species 'human'. Species is a universal, not a particular, and, as such, conception of the species 'human' does not prevent that meaning from applying to a multitude of particular individuals.

Objection to the definition of the particular

Al-Fanārī addresses an objector who puts forth the following argument:

- **Minor premise**: the particular is something the mere conception of whose meaning does *not* prevent shared application, such as Zayd, ʿAmr, or others.[14]

14. This is the minor premise of the objector's syllogism. It important to take note of the word "not" in "…mere conception of whose meaning does *not* prevent…." By adding this one word, we are now looking at the definition of universal. The definition of particular is "that thing the mere conception of whose meaning does prevent the occurrence…." It is as though the objector is saying "You say that 'a particular is a word the mere conception

- **Major premise**: all that are like that are universal.
- **Conclusion**: therefore, the particular is universal.

…then this is an absurdity.[15]

Response to the objection

At first glance, the objector appears to have shown that the definition of the particular leads to an absurdity, but it is important to take note of the word "not" in the minor premise "…mere conception of its meaning does *not* prevent…." By adding this one word, we are now looking at the definition of the universal, not the definition of the particular. The definition of the particular is "that thing the mere conception of whose meaning *does* prevent the occurrence…," whereas the definition of the universal is "that thing the mere conception of whose meaning *does not* prevent the occurrence…."

Why would the objector make the definiens of the universal a predicate of "the particular" in the minor premise? In other words, why would the objector make the phrase "…mere conception of its meaning does *not* prevent…" the predicate of "the particular" in the minor premise, rather than the phrase "that thing the mere conception of whose meaning *does* prevent the occurrence…," which is the proper definiens of the particular? Al-Fanārī advances two possible cases. The first is that the objector is using the term "particular" in the minor premise as the referent, the instance, the extension of the expression "particular," rather than using it as the term that signifies its essential meaning, its intension. In that sense, he is saying "each instance to which the meaning of the expression 'particular' applies—such as the Zayd, ʿAmr, or Bakr—is something the mere conception of whose meaning does not prevent sharing in application." Al-Fanārī responds, "…we do not accept the minor premise," as it is as though the objector is saying "the referents of the term 'particular' are universals": this is plainly false, as the referents are not universals; they are particulars. The objector is merely saying that particulars are universals in the minor premise, which is what he claims to prove in the conclusion.

The second possible case in which the objector might be using the definition of the universal as a predicate of "the particular" in the minor premise is that the objector is saying that the concept 'particular' is a universal, meaning

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of whose meaning does prevent the occurrence…' but I say the particular is a word the mere conception of whose meaning does *not* prevent the occurrence…" As for why the objector says this, al-Fanārī will explain shortly.

15. That is, it differs from the way things actually are in reality (*nafs al-amr*). Al-Fawzī, *Khulāṣa*, 44.

that 'particular' itself has shared application. All instances of particulars, such as 'Zayd', "Amr', and 'Bakr' (as particulars of 'human') or 'Titanic' and 'QE2' (as particulars of 'ship') are shared instances of the universal 'particular'. This is because 'particular' means "that thing the mere conception of whose meaning prevents the occurrence of sharing," and there are many individual things, like Zayd and Titanic, that fit this description, as each is an example of something the mere conception of whose meaning prevents the occurrence of sharing. There is no absurdity in this. 'Particular' as a term and a concept is indeed a universal, and this entails no controversy, so al-Fanārī rejects the absurdity that the objector claims to find in the conclusion of his argument. The conclusion simply means that 'particular' is a universal whose referents are the individual particulars of universals like 'human', such as Zayd and his friends.

In view of this, either the conclusion is sound and the objector was wrong to claim the absurdity, or the minor premise was wrong and ultimately begged the question, that is, stated the conclusion in the minor premise in an ambiguous fashion.

Simple Universal Expressions Are Either Essential or Accidental

The simple universal expression is either essential (*dhātī*) or accidental (*ʿaraḍī*).

Definition of the essential

The essential universal is first defined as that which enters into the quiddity of its particulars, such as 'animal' with respect to 'human' or 'horse'. That is, a human is a rational animal and a horse is a neighing animal; all humans, horses, cats, rabbits, etc. have the essential universal 'animal' in their quiddative essence. The meaning 'animal' enters into the quiddity of 'human', 'horse', and so on. Al-Fanārī then explains that the phrase "its particulars" in al-Abharī's definition of the essential includes both relative particulars and real particulars and is therefore applicable to 'human' whether intending its species-quiddity ('rational animal') as a particular of the genus 'animal' or intending Zayd as particular instance of 'animal'. The meaning 'animal' enters into both 'human' qua 'rational animal' and 'human' qua specific individual (i.e., 'rational animal' plus specific characteristics), as explained below.

Relative particulars

If what is intended by 'human' is 'rational animal' and by 'horse' 'neighing

animal' without stipulating any specific individuating characteristics that would limit the signification to a particular human or horse, then 'human' and 'horse' are instances of relative particulars. That is to say, 'horse' and 'human' are particulars with regard to the genus 'animal' (even though they are universals [i.e., species] with regard to the particular instances of humans and horses, respectively). Furthermore, 'human' is a particular of 'animal', which is a particular of 'body with vegetative qualities', which is a particular of 'body', which is a particular of 'substance'.[16] What relative particulars share in common is that they are particulars from one regard and universals from another, unlike real particulars.

Real particulars

If, however, what is intended by 'human' and 'horse' in the example given above is each individual instance of humans and horses—by which al-Fanārī meant the allotment of 'rational animal' plus the specific individuating characteristics of Zayd, or the allotment of 'neighing animal' plus the specific individuating characteristics of the horse named Seabiscuit—then, in that case, humans and horses would be real particulars. Real particulars are those wherein mere conception prevents shared application to a multitude. For example, if someone said, "Put the horse in the stable," and intended the specific horse named Seabiscuit, the term 'the horse' is understood to signify a real particular, not the species whose quiddity is 'neighing animal'.

Al-Fanārī assiduously parses the meanings of the terms in the definition to avoid critique and confusion. If an essential is that which enters into the quiddity of its particulars, such as 'animal' with regard to 'human' and 'horse', then the definition is sound whether those particulars referenced in the definition are relative particulars—as 'animal' enters into 'human', which is a particular with regard to 'animal' and an essential universal (species) with regard to each instance of human—or real particulars, since 'animal' enters into the quiddative meaning of the particular instance of 'human', namely, Zayd, whose quiddative essence is 'rational animal' plus his specific individuating characteristics. The definition holds for both relative and real particulars.

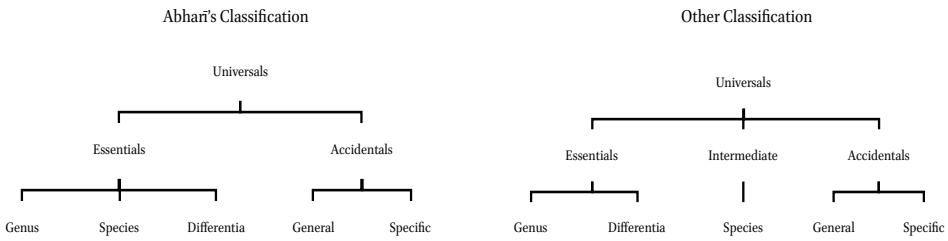
Is species an essential universal?

A problem arises from al-Abharī's definition of the essential as the universal that enters into the essence or quiddity of its particulars because, as such,

16. Al-Fawzī, *Khulāṣa*, 45.

species (*naw*ʿ) cannot be considered essential. That is because a species is the quiddity of a thing itself—its essential meaning consisting of genus and differentia—and how could the quiddity enter into the quiddity of the particulars? For example, the essential meaning of the species 'human' is 'rational animal' and the quiddity of each particular instance of human is also 'rational animal'. To say that 'rational animal' enters into or applies to 'rational animal' would be absurdly redundant and not provide any useful meaning. For those who define the essential as such, they consider species to be an intermediary category between the essential and the accidental. However, al-Abharī's classification only divides universals into essential and accidental, and he then explicitly divides the essential into genus, species, and differentia. Implicit in such a classification is that it is delimited to only the categories mentioned, so it seems that al-Abharī considers the species to be an essential universal (*dhātī*).

Al-Fanārī seeks to solve the apparent discrepancy between al-Abharī's definition of the essential—which when interpreted according to its outward purport would entail that species is not an essential—and his classification of universals into only essentials and accidentals, including species along with genus and differentia under essential.



The solution is rooted in the fact that there are two opinions as to the definition of the essential. The first is that the essential is defined as (a) "that which is internal to something" and the second opinion is that it is defined as (b) "that which is not external to something." Al-Abharī's definition of the essential is "that which enters into (or is internal to) its particulars" and is therefore based on opinion (a) when read according to its outward purport. However, his classification is according to opinion (b) as he lists genus, species, and differentia as essentials, rather than listing species as an intermediate category between essential and accidental, as discussed previously.

Such an apparent discrepancy would either be due to a mistake on al-Abharī's part, or he intended one of two possible things:

(1) He gives the definition of the essential according to opinion (a) and presents a classification according to opinion (b). The indication that this may be the case is that he does not say "The universal is either an essential… or an accidental…and it [i.e., the essential] is either…." Rather, al-Abharī says "The universal is either an essential…or an accidental…and the essential is either…." By repeating the word "essential," he is signaling a move from the first meaning to the second meaning, since using a pronoun to refer back to the word "essential" as defined according to opinion (a) while intending the pronoun's meaning according to opinion (b) would not be sensible, even if it is possible according to the convention of Arabic grammar for a pronoun to return to the second meaning of a word that was explicitly used with its first meaning earlier. This convention is called *istikhdām*, and it is when there is an expression with multiple meanings—whether both are literal, both are metaphorical, or one is literal and the other is metaphorical—and the first usage is according to one meaning and the pronoun referring back to it is intended according another meaning.[17] This, however, is not the predominant usage, and therefore the best choice to indicate the movement from the first meaning given in the definition to the second meaning used in the classification would be to restate the term "essential" and then to give the classification according to opinion (b), indicating this shift in intended usage.

Objection

An objection is raised, however, as follows. When al-Abharī says, "A universal is either *an* essential…," he uses the indefinite form for "essential," but when he returns to it in the classification, he uses the definite form, saying, "*The* essential is either…." Due to a grammatical principle, when one mentions an indefinite noun and then refers back to it by repeating the noun in the definite, the second usage of the term is understood to refer back to the first usage in its original sense and not some other meaning of the term.

Response to the objection

However, al-Fanārī responds that it is common to depart from this conventional rule with evidence in context that signifies the departure from that rule.

In conclusion, since al-Abharī uses the term "essential" in his definition in one sense (opinion a) and then repeats the term "essential" and gives its

17. Al-Fawzī, *Khulāṣa*, 46.

classification according to another sense (opinion b), this is the contextual clue that he is using the term according to one meaning in the definition and another in the classification, and it is also the contextual clue that he is departing from the convention that says that mentioning a word in the indefinite and then repeating it in the definite indicates that the repeated term is intended in the same sense as the first mention of the term. All of this assumes that he is using the term "essential" in its two different senses (opinions a and b).

(2) The second possibility for this apparent discrepancy is that al-Abharī gives the definition according to opinion (b) but via figurative usage of the phrase "enters into," by which he meant "is not external to." This allows for the definition to be according opinion (b) and the classification to also be according to opinion (b). That is, when he says, "...an accidental is either an essential, and it is the [universal] that enters into the quiddity of its particulars…," he intends by "enters into" its necessarily entailed meaning of "is not external to" (i.e., opinion b). Hence, the intended meaning of the definition of the essential is "…an essential is the universal that is not external to its particulars." With this, species can be counted as an essential, for 'rational animal' is the essential meaning of 'human', and it is not external to any particular instance of human. If this interpretation of al-Abharī's expression is correct, then the convention of repeating the term when he could have used a pronoun does not indicate any movement of meaning from opinion (a) to opinion (b) since opinion (a) is absent from the text. Furthermore, the convention from the science of rhetoric holds true that mentioning a term in the indefinite and then repeating it in the definite means the repeated term refers back to its original sense, since the meaning of "essential" in both the definition and the classification is "that which is not external to…."

As a side note, al-Fanārī considers these two possible meanings of "essential" to be homonyms; however, it may be more accurate to say that this is a disagreement over how to define a technical term, as a homonym would indicate there is agreement that a word has two separate coined lexical meanings, whereas in this case one group of scholars considers the technical term to have one meaning and the other group considers it to have another meaning.[18]

Definition of the accidental

As for defining the accidental, al-Abharī defines it negatively, namely, that the accidental is that which is opposed to the essential, in that the accidental

18. I am indebted to the recorded lectures of Shaykh Salih al-Ghursi for this observation.

does not enter into the quiddity of its particulars. Its not entering the quiddity of its particulars is true whether one is defining the accidental in opposition to the first definition of the essential—"that which enters into the quiddity of its particulars"—or the second definition of the essential—"that which is not external to the quiddity of its particulars." In other words, the accidental is *not* "that which enters into the quiddity of its particulars" and is *not* "not external to it." As such, the accidental is not an internal part of the quiddity of its particulars, in opposition to the first definition of the essential, and *is* external to the quiddity, in opposition to the second definition of the essential.

Al-Fanārī offers 'laughing' with regard to 'human' as the example of an accidental, since laughing is external to the quiddity of 'human'. What distinguishes between an essential and accidental quality for any given thing? There is a principle that if a species has an ordered sequence of specific characteristics—such as 'rational', 'capable of perceiving subtle and strange things' (*al-muta'ajjib*), and 'laughing'—then the first and most prior one is considered essential because the essential is most prior. This prioritized sequence informs us that humans are first and foremost animals and are distinguished from other animals by their rationality. This rationality, in turn, allows one to perceive subtle and strange things, which may, in turn, lead to laughter. It is helpful to note that the term translated herein as "laughing" should be understood as 'risible', that is, 'capable of laughing', and not as '*actually* laughing'. The capability to laugh is a potentiality shared by all humans, even if one imagines a human who is not currently laughing, or, sadly, never laughs.

Objection to the usage of the term "essential"

A critique arises regarding the term essential (*dhātī*), which is that if the essence (*ḥaqīqa*) of the species of a thing is the same as the very thing's essence (*dhāt*), then that would entail that it is ascribed to itself. This would be like saying that the city of Boston is Bostonian, whereas the term 'Bostonian' is used for something other than the city itself; it is used to ascribe a resident of the city to that city. This critique is based on the morphological function of the letter *yā'* that is connected to the noun *dhāt* in order to produce the word *dhātī*. The ascriptive *yā'* is used to ascribe one thing to another distinct and separate thing, like ascribing Zayd, a resident of Egypt, to a separate thing, namely, the country of Egypt (Miṣr), by calling him al-Miṣrī. If it is said that species (*al-naw'*) is an essential (*dhātī*), then a species is ascribed to its own essence (*dhāt*); the species 'human', whose essential meaning is 'rational animal', is ascribed to its essence, which is also 'rational animal'. Self-ascription

is redundant and tautological.

Response to the objection

There are two responses to this critique. The first is the popular response, and the second is the one that al-Fanārī prefers. The popular response is that the term "essential" (*dhātī*) is intended in its technical meaning—that which is not external to the essence (*ḥaqīqa*) of a thing—rather than its lexical meaning of "that which is ascribed to the essence (*dhāt*)." This removes the problem of ascription, since the *yā'* in the technical meaning is not ascriptive, since technical meanings entail a movement from the lexical to a newly coined technical meaning, even if there is a relationship between the original lexical and new technical meaning. Al-Fanārī's preferred response, however, is that just as the term "essence" signifies the intensional or quiddative meaning itself—such as 'rational animal' without the stipulation of the specific individuating characteristics of any individual referent—it also designates that to which the intensional meaning applies, that is, the extension or individual referents of that intensional meaning, such as Zayd, Bakr, and others. In view of this, perhaps al-Abharī intended by the word "essence" the second meaning, that of extensional referents, when designating the species (*al-naw'*) as essential (*dhātī*). This means that the species is ascribed to the essence-qua-referent just as the parts of the species' quiddative meaning are also essentials, namely, 'rational' and 'animal', which are the differentia and genus, respectively. In other words, the term "essential" can be applied to that aspect of Zayd which is his shared humanity—animality and rationality—along with all other humans denuded of their specific individuating characteristics that distinguish one from the other. Alternatively, the term "essential" can be applied to each human—including Zayd, Bakr, others—whose quiddative essences are 'rational animal' as coupled with their specific and individuating characteristics. "Essential" is a term that can describe the quiddative aspect of each human without specific individuating characteristics, and it is also a term which can be used to designate that quiddative aspect coupled with the specific individuating characteristics of each referent.

Classification of Essential Universals

Having already discussed the meaning of "essential," al-Fanārī proceeds to divide essentials into three categories. The justification for delimiting them to these three is that an essential is either that which is said in answer to the

question "What is it?" or in answer to "Which thing is it in essence?" The answer to the latter question provides the differentia. The former question, however, must be further conditioned by the inclusion or exclusion of the essential individuating characteristics of each individual who otherwise shares in the same genus.

Definition of the genus

To discover the genus, the shared essential qualities that unite humans, horses, cats, and elephants, for example, one must answer a more specific question, namely, "What is it on account of *only* what is shared?" That is, "What are humans, horses, cats, and elephants, with regard to what is essential to all of them?" The answer given, "Animals," provides the genus. However, when the question is more specific and instead asks, "What is it on account of what is shared and what is specific?" then by giving in answer to the question both the shared essential 'animal' and the specific essential 'rational', one arrives at the species (*al-nawʿ*), in this case, 'human'. The key is that the one asking will be asking about the complete essence relevant to the thing being inquired about. If what the questioner asks about is only the complete essence shared by horses and humans, then he is asking about the genus. But if the questioner is asking about the complete essence shared by Zayd, ʿAmr, and Bakr, then he is asking about the species, as 'rational animal' is the complete essence shared by all three.

Al-Abharī defined the essential as

> …either what is said in response to "What is it?" in accordance with what is shared, such as 'animal' with regard to 'human' and 'horse'…

However, in order save al-Abharī's statement from being incorrect, al-Fanārī necessarily interjects "only" in order to distinguish the genus from the species. That is, the definition now correctly reads:

> …either what is said in response to "What is it?" in accordance with *only* what is shared, such as 'animal' with regard to 'human' and 'horse'…

So al-Fanārī argues that this is what was intended, even if al-Abharī did not mention it, since what is said in response to "What is it?" can be either the genus or species if it is not restricted to only what is shared. However, in some editions, the word "purely" is found in al-Abharī's text, and it may be

that al-Fanārī's copy had that mistaken omission.

Al-Fanārī then provides the descriptive definition (*al-rasm*) of genus:

> A universal said (*maqūl*) of a multitude of things that have different essences (*ḥaqā'iq*) in answer to the question "What is it?"

Analysis of the definition of genus

His descriptive definition's inclusion of the term "a universal" provides the genus of the definiendum, which is 'genus', just as 'animal' is the genus of the definiendum 'human'. Then, "said of" (*maqūl ʿalā*) plays the important role of connecting the expression "a universal" to the expression "a multitude of things," resulting in the descriptive definition of genus being "a universal said of a multitude of things…." Al-Fanārī mentions this to demonstrate that neither expression—"universal" or "said of"—is extraneous or redundant as some critics had said. The critique is that "said of a multitude" is the same as "universal," so it is as though he said, "A universal is a universal," which would be redundant and extraneous. Al-Fanārī, however, demonstrates that each word plays an important role in producing this descriptive definition. Moreover, "said of" is mentioned in connection with "a multitude of things" in order that the expression "a multitude of things" can be described as "having different essences." Without "said of" linking the genus ("universal") to the expression "a multitude of things," "a multitude of things" would not be able to obtain its distinguishing attribute of "differing in essence."

Exclusions from the definition of the genus

As for the phrase "having different essences," its inclusion in the definition serves to exclude the species from this definition since the differentiation within a species' members is only with regard to number and not essence, and it also excludes the special accident of the species (*khāṣṣat al-nawʿ*), which is said of a multitude agreeing in their essences. Finally, it excludes the proximate differentia, which is proximate to the species because it too is said of agreeing essences.

Al-Fanārī raises a critique aimed at two of the *Īsāghūjī*'s commentators—Quṭb al-Dīn al-Rāzī and Ḥusām al-Dīn al-Kātī—that including the stipulation "having different essences" in order to exclude species is arbitrary, a judgment

without a proof (*taḥakkum*).[19] The critique is that claiming al-Abhārī excluded species from the definition by saying "having different essences" fails to address the prior stipulation of "said of a multitude of things," which excludes the special accident and the differentia. Perhaps what is meant is that it would have been better for him to first mention these exclusions before moving on to the second stipulation, "having different essences," which excludes species from the definition. Al-Jurjānī, however, disagrees and defends al-Abhārī's specification of the exclusion of species.

Al-Abharī's saying "in answer to 'What is it?'" excludes from the definition the distant differentia (*al-faṣl al-baʿīd*) because the distant differentia is not a sufficient answer to "What is it?" which is a question about the essence (*ḥaqīqa*). It also excludes the general accident (*al-ʿaraḍ al-ʿāmm*), which is not fit as an answer to the question at all such that one would answer, "Walking," to the question "What is it?" Also excluded is the special accident of the genus (*khāṣṣat al-jins*), which is also not an appropriate answer to "What is it?"; rather, the special accident of the genus answers "Which thing is it in its accidental property?"[20]

Moreover, the definition of genus, along with those of its analogues—species, differentia, special accident, and general accident—are all descriptions because being able to be said of another thing is an accidental property of the five universals. Using an accidental property in a definiens is a characteristic of a description (*rasm*), not a definition (*ḥadd*). This definiens is a description through accidental properties because a genus in itself is an essential universal for things that have different essences, regardless of whether or not 'genus' is said of them.

The status of 'being said of something' in the definition of the genus

Al-Fanārī turns to a discussion that appears to have received some discussion by Ibn Sīnā and his later commentators, but the details are not disclosed. However, its relevance pertains to whether or not al-Abharī's definientia of the five universals are definitions or descriptions. The discussion regards the quality of 'having been said of something' and whether or not 'genus' could be suitably described as 'having been said of something'. Al-Fanārī answers that this is an example of the accidental qualification of a thing after its coming into existence and cites Quṭb al-Dīn al-Rāzī's commentary on Ibn Sīna's *al-Ishārāt* as

19. Al-Fawzī, *Khulāṣa*, 51.
20. Al-Fawzī, *Khulāṣa*, 52.

his source.[21] That is, 'having been said of something' is not an essential quality of genus; rather, it is an accidental quality that only applies after that genus has come into existence. Thus, al-Fanārī tells the reader not to pay attention to what was said by al-Kātibī and Ibn Sīnā regarding the definiens of each of the five universals being definitions (*ḥudūd*) due to their being subjective matters (*umūr iʿtibāriyya*). That is, they are in fact descriptions, even if the essential qualities of subjective matters can be determined by the one coining a technical term.[22]

Objection to the definition of the genus

Al-Fanārī describes the term 'genus' as "a universal said of a multitude of things differing in essences in answer to the question 'What is it?'" He also asserts that the 'universal' as used in the definition is the genus of 'genus' and the other four of the five universals. He anticipates an objection that claims that the definition of 'genus' is not inclusive of all members under the term. For any term being defined, one typically begins with its genus. If defining 'cat', one starts with 'animal' and then specifies its differentia 'meowing'. So 'animal' is the genus of 'cat' when cat is the definiendum, and 'universal' is the genus of 'genus' when genus is the definiendum. The objection concerns the implications of al-Fanārī's assertion that 'universal' is the genus of 'genus'.

The objection states that defining 'genus' with 'universal' is invalid as it excludes other universals such as 'species' and 'differentia'. This is akin to defining 'animal' with 'human' and thereby excluding all other animals like horses or cats. The claim is that 'genus' is a higher category than 'universal', and it is not permissible to define the general by one of its specific members. In other words, in the definition that begins "A genus is a universal that…," the concept 'universal' is more specific, from a category subsumed under 'genus', rather than being more general and from a category under which 'genus' is subsumed. The subsuming of 'genus' under 'universal' or the subsuming of 'universal' under 'genus' is at the heart of the objection and al-Fanārī's response, as discussed in detail below.

Al-Fanārī's response is twofold. First, he concedes that the objection might hold but without any benefit. The second is to deny that the objection holds. Regarding the first approach, he identifies two perspectives regarding the terms

21. Al-Fawzī, *Khulāṣa,* 52.
22. Ibrāhīm b. Muḥammad ʿIṣām al-Asfarāyīnī, *Ḥāshiyat ʿIṣām ʿalā al-Jāmī* (Istanbul: Dersaadet, 1309 AH), 18.

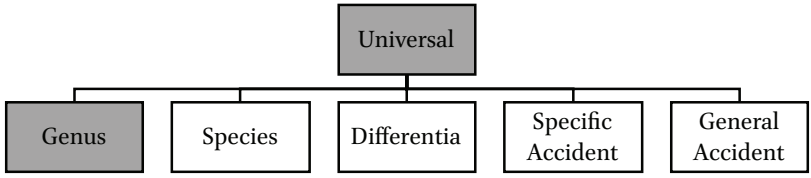
'genus' and 'universal': one *definitional* and essential and the other *specified* and accidental.

Response #1: Definitional usage of universal, more general than genus

The *definitional* perspective uses 'universal' in the more general meaning and uses 'genus' as one of five more specific categories subsumed under 'universal'. This is the essential and definitional usage of 'universal', wherein 'genus' is subsumed under 'universal'; it would be valid to use 'universal' in the definition of 'genus', 'species', etc.

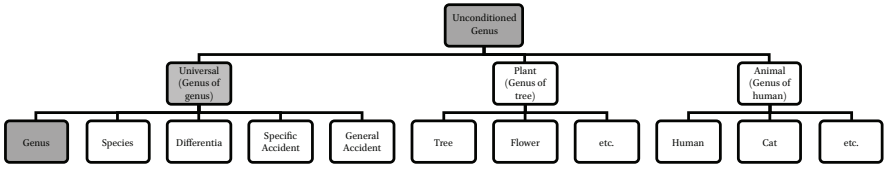
Response #2: Accidental specified usage of universal, more specific than unconditioned genus

The *specified* perspective uses 'universal' as the genus of the five universals—including 'genus'—in which case 'universal' is a subcategory of absolute or unconditioned 'genus'. In this case, 'universal' is subsumed under absolute



'genus' as one instance of genus among other genera, alongside 'animal', 'plant', 'mineral', etc. 'Universal' as an instance of 'genus' is therefore subsumed under it from an accidental perspective and not valid to use in a definition. As such, the objection does not apply.

Al-Fanārī, however, grants that the objection could still hold if both the definitional and specified perspectives on the meaning of 'universal' were combined in al-Abharī's definition of 'genus', but this would be a useless observation for the objector to make since the definitional meaning should be separated from the specified meaning, thereby rendering the definition sound.



Regarding the second approach, wherein al-Fanārī's denies that the objection holds, he points out that if the objection intended the absolute impermissibility of using 'universal' in the definition of 'genus', this is clearly rejected because the definitional and essential meaning of 'universal' is a definiens and more general than the unconditioned 'genus'. The specific meaning of 'universal' in its accidental meaning is not a definiens and is more specific than the unconditioned 'genus'. It is possible and permissible for both the essential definitional and accidental specified meanings to be applied to 'universal' from differing perspectives. As such, when defining 'genus', one uses the essential definitional meaning of 'universal'. When identifying 'universal' as member of the various different categories of genera, one uses the accidental specified meaning (i.e., genus of 'genus', genus of 'species', genus of 'differentia', etc.).

In conclusion, these two different matters—the *definitional* essential meaning of 'universal' and the accidental non-definitional *specified* meaning of 'universal' as the genus of 'genus'—are permissible to apply to one thing so long as they are applied from two different perspectives. That is, 'universal' being used as definiens and more general than 'genus' is permissible with regard to its essential meaning, and 'universal' being more specific than unconditioned 'genus' is permissible with regard to its being the genus of 'genus', but the latter perspective is not considered valid in constructing a definition of genus.

Definition of the species

Continuing the division of essentials, al-Fanārī moves from a discussion of the genus to the discussion of the species. Like the genus, which answers the question "What is it?" but only with regard to what is shared between all of its particulars—such as animality shared by all animals—the species additionally answers "What is it?" with what is specific to those particulars that differentiates them from particulars of other species, such as rationality, which, among animals, is a quality shared only by humans. What is specific to those particulars being asked about is that they also share the same differentia, entailing that their broadly shared genus and specifically shared differentia distinguish them as a unique species. If one asks about one or more human beings—such as "What is Zayd?" or "What is Zayd and ʿAmr?"—we answer, "Human," because 'human' qua 'rational animal' is the complete essence of every individual human, and they differ only in their individuating accidents.

Our answer—said in response to "What is it?"—is a saying whose essential meaning is inclusive of the genus and differentia, and is called the species

(*al-naw'*). It is described—rather than defined—as a universal said of a multitude that differs in number but not in essence in answer to the question "What is it?" What is intended by stipulating that the multitude of things differs in number is that it may consist of different individuals who share the same genus and differentia but are distinguished from each other by their specific individuating characteristics. Compare this to the genus, wherein our answer to the question "What is it?" is a universal said of a multitude of things that do not share the same differentia and, as such, differ in essence. Their differing in number—regardless of whether that difference is extramental or mental—includes the species that is limited to one individual (i.e., the sun), and the species whose name is heard but whose body is nonexistent, such as fictional entities like the phoenix. That is, a species whose individual members sharing in the same genus and differentia amount to zero members or one member still falls under this definition due to the existence of more being rationally possible extramentally—as in the case of 'sun'—or mentally imaginable despite not extramentally existing, as in the case of 'phoenix'.

Exclusions from the definition of the species

Al-Fanārī reminds the reader that the mention of "universal" and "said of many" in the definition of 'species' is not superfluous. Just as discussed previously with regard to the definition of 'genus', the inclusion of the term "a universal" in the description of 'species' provides the genus of the definiendum 'species' just as 'animal' is the genus of the definiendum 'human'. Likewise, "said of" (*maqūl*) plays the important role of connecting the expression "a universal" to the expression "of a multitude of things differing in number but not in essence," resulting in the descriptive definition of 'species' being "a universal said of a multitude of things that differ in number but not essence in answer to the question 'What is it?'" Without "said of" linking the genus ('universal') to the expression "a multitude of things," "a multitude of things" would not be able to obtain its distinguishing attribute of "that differ in number but not in essence."

Al-Abharī's saying "differ in number but not in essence" serves to exclude the genus (i.e., 'animal'), special accident of the genus (e.g., 'breathing'), general accident (e.g., 'walking'), and distant differentia (e.g., 'sensing'). Each of the aforementioned excluded concepts are all said of a multitude of things that differ in number and in essence, unlike 'species', which is said of many that differ in number but not in essence.

Al-Fanārī again raises a critique aimed at two of the *Īsāghūjī's* commentators—Quṭb al-Dīn al-Rāzī and Ḥusām al-Dīn al-Kātī—that singling out the genus as being excluded by the phrase "differ in number but not in essence" is arbitrary, a judgment without a proof (*taḥakkum*). That is, the two commentators mention that al-Abharī intended to exclude 'genus' from the definition by means of "differ in number but not in essence," but do not claim that special accident of genus, general accident, and differentia were excluded thereby.[23] Their omission of these essential universals and singling out only 'genus' as being excluded by "differ in…" is interpreted as a judgment akin to saying "only genus is excluded by the phrase…." Interpreted as such, their judgment of the genus' sole exclusion by means of the phrase "differ in…" is an arbitrary judgment without evidence.

Al-Abharī's saying, "…in answer to 'What is it?'" serves to exclude the close differentia (i.e., 'rational') and the special accident of the species (e.g., 'laughing'), as the close differentia is said in response to "Which thing is it essentially?" and the special accident is said in response to "Which thing is it accidentally?" and not to "What is it?"

Objection to the definition of the species

One might object, saying that the genus and its analogues—special accident of the genus, distant differentia, and special accident—are also said of a multitude of individuals differing in number, so how would the genus and its analogues be excluded from the scope of the definition? For example, when we answer, "Animal," in response to "What are Zayd, ʿAmr, this horse, and that horse?" are we not saying that 'animal' is said of a multitude of individuals differing in number?

Response to the objection

Al-Fanārī responds as he typically does by first giving a possible interpretation of the question that might render the objection sound. He says that if this objection were to soundly apply, then it would only apply against one who tried to exclude genus and its analogues through qualifying "a multitude" with "sharing in essence." He appears to have al-Kātibī in mind, who said, "[The species is] a universal said of one or many agreeing in essence in answer to

23. Ḥusām al-Dīn al-Kātī, *Sharḥ matn al-Īsāghūjī fī al-manṭiq*, ed. Qāsim b. Naʿīm al-Ḥanafī (Beirut: Dār al-Kutub al-ʿIlmiyya, 2015), 26.

'What is it?'"[24] With this phrasing of the definition, al-Kātibī aims to exclude the genus and its likes by adding the phrase "agreeing in essence," since a genus is what is said of a multitude of things that have different essences in answer to "What is it?" and not a multitude agreeing in essence. Commentators have discussed and critiqued al-Fanārī's apparent suggestion that al-Kātibī's definition might be open to this objection.[25] That is, al-Fanārī suggests that al-Kātibī's definition might not sufficiently exclude 'genus' in the context of the objector's proposed question, which asks about Zayd and ʿAmr, who share in one essence (i.e., 'rational animal'), as well as this horse and that horse, who also share another essence with each other (i.e., 'neighing animal'). Why it might be open to critique is not clearly explained or defended.

Al-Abharī appears to be safe from critique, as he negates the phrase "differing in essence" as found in the definition of 'genus' by saying, "…without [differing] in essence," in his definition of species. In doing so, he properly excludes genus and its analogues because "Animal," for example, is not valid as an answer except when the question contains individuals differing in essence (such as Zayd and this horse) even if the question also includes individuals sharing in essence (such as Zayd and ʿAmr). Despite suggesting that al-Kātibī's definition might be open to such critique, al-Fanārī then says that the applicability of the objection to him also bears the burden of proof. In other words, as some commentators have noted, al-Kātibī's and al-Abharī's definitions effectively accomplish the same thing.[26]

One argument for the objection's possible validity would be that since Zayd and ʿAmr share in essence, and this horse and that horse share in essence, then from one angle there is sharing in essence (species) and from another angle differing in essence (genus), so answering 'animal' is applying to something differing in number but agreeing in essence (species) and also to something differing in essence (genus). However, as discussed below, the objection as stated only mentions "differing in number" and not "differing in number but agreeing in essence" as found in al-Abharī's definition. Differing or agreeing in essence is implied by the inclusion of Zayd, ʿAmr, this horse, and that horse in the example question, and the proposed inclusion of both species and genus under the definition of species is drawn from there. Since the objection as stated does not apply to Al-Abharī's definition, and due to the vague implication that species and genus are both included by answering, "Animal," to the

24. Al-Kātibī, *Taḥrīr*, 129.
25. Qarah Khalīl, *Ḥāshiyat Qūl Aḥmad*, 229.
26. Qarah Khalīl, *Ḥāshiyat Qūl Aḥmad*, 229.

sample question's inquiry about two pairs of different species, commentators like Qarah Khalīl declare al-Fanārī's discussion incorrect (*fāsid*).[27]

Returning to al-Fanārī's discussion, he says that the validity of answering the objector's question with the genus 'animal' takes into consideration the question's including things that differ in essence (e.g., Zayd and this horse) and things that share in essence, (e.g., Zayd and 'Amr) and treating them as one. That is, it is valid to answer this question with the genus 'animal' when taking into consideration that the question includes things differing in essence (Zayd and this horse) even if it also includes members of species that agree in essence (Zayd and 'Amr). As such, al-Abharī's definition of species sufficiently excludes genus and its analogues because the stipulation that species is said of a multitude of things differing in number *but not in essence* excludes genus, which only applies to something said of a multitude of things that differ in essence.

Definition of the differentia

After completing his discussion of possible objections and defenses of al-Abharī's definition of species, al-Fanārī turns his attention to al-Abharī's definition of differentia. Having discussed the previous two essential universals that answer the question "What is it?" al-Abharī moves to that which is said in response to "Which thing is it essentially?" The question "Which thing is it?" inquires about the distinguishing factor which will either be an essential, accidental, or unconditioned distinguishing factor. The essential distinguishing factor is the proximate differentia, such as 'rational' with regard to 'human'. The accidental distinguishing factor is the special accident, such as 'laughing' with regard to 'human'. As for the unconditioned distinguishing factor, then one answering "Which thing is it?" may answer with whatever distinguishing factor provides a general distinction of one thing from another. In the context of a division of essential universals, al-Abharī's intended focus in on defining and explaining the essential distinguishing factor, that is, the differentia. He will return to accidental distinguishing factors in the context of dividing accidental universals in to general and special accidents.

The essential distinguishing factor distinguishes one thing from another thing that shares the same genus, such as 'rational' with regard to 'human'. While humans and elephants, for example, are of the same genus, rationality is the distinguishing factor that distinguishes them from one another.

27. Qarah Khalīl, *Ḥāshiyat Qūl Aḥmad*, 229.

Humans are animals. What sort of animals? The rational kind. In addition to the straightforward concept of the distinguishing factor, al-Fanārī reads al-Abharī's discussion of differentia to be an indication that every quiddity that has a differentia necessarily also has a genus. This principle is drawn from Ibn Sīnā's *al-Shifāʾ*[28] and was adopted by earlier scholars of logic. Later scholars, however, chose the opinion mentioned in Ibn Sīnā's *al-Ishārāt*,[29] which is that the differentia is more general than distinguishing a thing from those that share the same genus—such as 'rationality', which distinguishes humans from horses, cows, and other animals—or those that share in existence—such as possessing senses which distinguishes humans from stones, trees, and steel. Al-Fanārī is referring to a disagreement between scholars of logic which he considers to have informed al-Abharī's definition. This disagreement is based on the impossibility of a quiddity's being composed of two coextensive things, as opposed to being composed of a genus and differentia or composed of a genus and special accident. While no example of such a quiddity can be mentioned—either due to its impossibility or due to its non-occurrence in actuality—the view that such a thing is impossible is that of earlier scholars while the later scholars considered it possible yet non-actualized. While al-Abharī does not mention the disagreement explicitly, al-Fanārī assumed that the author chose the school of the earlier scholars but did not mention it in his definition, since he had already said, "…and it is that which distinguishes a thing from that which shares with it the same genus," and would soon thereafter say, "…and it is described as a universal said of a thing in answer to 'Which thing is it?'" With the first statement, the mention of "genus" was sufficient such that it did not need to be repeated in the forthcoming definition. Or, perhaps, al-Fanārī wonders, al-Abharī was hinting at the two schools in the two abovementioned contexts (i.e., "…and it is that which distinguishes…" and "…and it is described…"), respectively.

Returning to the flow of al-Abharī's text, having first set the stage with mention of the framing question—"Which thing is it essentially?"—that asks about the essential distinguishing factor that distinguishes a thing from that which shares the same genus, al-Abharī informs us of the name of this distinguishing factor: "…and it is the differentia."

28. See Abū ʿAlī b. Sīnā, *al-Shifāʾ: al-Ilāhiyyāt*, ed. Ibrāhīm Madkūr (Cairo: al-Raʾīsiyya al-ʿĀmma, 1960), 230–5.
29. See Abū ʿAlī b. Sīnā, *al-Ishārāt wa-l-tanbīhāt maʿa sharḥ Naṣīr al-Dīn al-Ṭūsī*, ed. Sulaymān Dunyā, 3rd ed. (Cairo: Dār al-Maʿārif, n.d.), 1:192–3.

Division of the differentia into close and distant

Before returning to al-Abharī's text, wherein he will give the description of the term 'differentia', al-Fanārī first divides differentia into close and distant.

The differentia that distinguishes a thing from those that share the same close genus is called the close differentia. The close genus is that which is properly said in answer to a question about the quiddity (such as the quiddity of 'human') and all that share that genus (such as cows, cats, goats, and such). That is, the questions "What is a a human?" "What is a cow?" and "What is a cat?" can all be properly answered with the genus 'animal', which is their shared close genus. Al-Fanārī gives the example of the close differentia, namely, 'rational', which distinguishes 'human' from all other animals that share in the genus of animality. He gives the example of 'animal' for the close genus which is properly given in response to a question about the quiddity of humans and all that share in the genus of animality.

The distant differentia, on the other hand, is the distinguishing factor that distinguishes a thing from those that share the same distant genus. The distant genus is not properly given in response to a question about the quiddity of a thing (such as 'human') and all which shares the distant genus with that thing (such as plants and trees). So, the questions "What is a human?" "What is a plant?" and "What is a tree?" are not properly answered with the genus 'thing with vegetative qualities', which is their shared distant genus. Al-Fanārī gives as an example of the distant differentia 'thing that possesses senses' which distinguishes 'human' from 'plant' and 'tree', which share in the distant species of 'thing with vegetative qualities'. That is, humans, plants, and trees all share in the distant genus of 'thing with vegetative qualities', but 'thing that possesses senses' distinguishes humans from plants and trees.

Exclusions from the definition of the differentia

After parsing out the divisions of genus and differentia into their respective close and distant kinds, al-Fanārī returns to al-Abharī's text, wherein the author describes—rather than defines—the differentia as a universal said of a thing in answer to "Which thing is it…?" Al-Fanārī does not complete the description here. Instead, he turns to a discussion of the exclusions from the definition before turning to the final word in the definition, which is "…essentially."

Genus and species are excluded from this description by the fact that they are not applicable as answers to "Which thing is it?" Instead, genus and species are said in answer to "What is it?" as discussed previously. Also excluded

from al-Abharī's description is the general accident since it is not applicable as an answer to anything. Al-Fanārī then returns to al-Abharī's description of differentia, mentioning the final word, namely, "…essentially." The inclusion of "essentially" excludes the special accident, which, as the name indicates, answers the question "Which thing is it accidentally?" In view of this, al-Abharī's full description of differentia reads: "a universal said of a thing in answer to 'Which thing is it essentially?'" Uncharacteristically, al-Fanārī does not follow the exclusions with potential objections and responses.

Classification of Accidental Universals

Having provided a division of essential universals into genus, species, and differentia, al-Abharī then moves to a division of accidental universals, which will complete the exposition of the five universals. Accidentals, al-Fanārī interjects, are of two types. The first is the special accident and the other is the general accident. If an accidental universal is peculiar to one essence, then it is called a special accident. If, on the other hand, an accidental is applicable to a plurality of different essences, then it is a general accident. The definitions and examples of these two accidental universals will be parsed out shortly, but first al-Fanārī turns to matters connected to the classification of universals and the possibility of deriving more subdivisions of accidentals.

Thus far, the method of division which has produced this fivefold classification of the universals has been based on a division of universals into those which are not external to the essence of a thing and those which are external to the essence. Those that are not external to the essence of thing, that is, essentials, were further subdivided according to their suitability as answers to questions inquiring about what a thing is or which thing it is. Those that are external to the essence of a thing are accidentals, and al-Fanārī first divides them according to whether they are peculiar to one essence (such as 'laughing' with regard to 'human') or applicable to a multitude of essences (such as 'breathing' with regard to various species of animals). This method of division brings us to the five universals. However, al-Abharī delays mention of the special and general accidents and instead first divides accidental universals according to their separability or inseparability from the quiddity.

Inseparable and separable accidents

Accidental universals are either inseparable from the quiddity of a thing or

separable. Inseparable accidents are so either because their separation from the quiddity is rationally impossible in and of itself (such as three's being an odd number) or conventionally inseparable from the quiddity as it exists (such as the blackness of the Abyssinian). Oddness is that which is inseparable from the quiddity of odd numbers, and blackness is an example of that which is inseparable from the existence. In other words, oddness is essentially and rationally inseparable—in the mind and in the extramental world—from the number three, whereas blackness is inseparable from the Abyssinian when that person exists in the extramental world. As for the possibility of an Abyssinian or Anatolian person having a different skin color, then this is clearly rationally possible, even though existentially not the case. The emphasis is on the fact that separability is possible in the mind, regardless of whether Anatolians are white, Abyssinians black, pine needles green, or snowflakes white.

As for separable accidents, their separation from the quiddity is not impossible. The separation of the accidental quality might occur quickly, such as the redness of a shy person, or slowly, such as the gradual loss of youthfulness as one ages. Separation might not occur at all in actuality despite its rational possibility, such as perpetual poverty for one who might otherwise have been rich or perpetual richness for one who might have otherwise been poor.

Definition of the special accident

After dividing accidental universals into separable and inseparable accidents, al-Abharī then divides each into special or general accident. That is, the separable accident can either be a special or general accident, and the inseparable accident can also be either special or general. If an accident, whether separable or inseparable, is peculiar to a single essence, it is called a special accident. An example of an inseparable special accident is 'having the potential to laugh' with regard to 'human', while the example of a separable special accident is 'actually laughing' also with regard to 'human'. That is, laughing (or risibility) is an accidental property specific to humans that is always potentially present since the potential to laugh is tied to the capacity to find things funny (*taʿajjub*), which itself is entailed by the essential quality of rationality. The potential to laugh is an inseparable special accident. When a specific person is actually laughing, then while that is also a quality unique to humans—and, as such, also a special accident—it is a quality which may separate from that specific person. Therefore, 'actually laughing' is a separable special accident.

Al-Abharī then gives the description of the special accident, whether inseparable or separable, as "a universal said accidentally of that which is

categorized under only a single essence." That is, the special accident is said in answer to "Which thing is it accidentally?" such that it is an accidental distinguishing factor that distinguishes a thing from all other things that share the same genus.

Exclusions from the definition of the special accident

In mentioning its being limited to a single essence, al-Abharī excludes the genus, which is said of a multitude of things differing in essence. He also excludes the general accident, which is generally applicable to more than one essence. In mentioning "[said] accidentally," he excludes the species and the differentia, which are said essentially of a multitude of things categorized under a single essence.

Definition of the general accident

After describing the special accident, mentioning its examples, and demonstrating its proper exclusivity and inclusivity, al-Abharī then gives examples of general accidents, whether inseparable and separable, which are generally applicable to more than one essence. As an example of the inseparable general accident, he mentions 'potentially breathing' with regard to 'human' and other animals since humans and many other animals cannot be conceived without the ability to breathe. As an example of the separable general accident, he offers 'actually breathing' with regard to 'human' and other animals since a human may cease breathing, even if briefly, while still remaining a human. By saying, "…with regard to humans and other animals," for both actual and potential general accidents, al-Abharī is offering an explanation of their general applicability to multiple essences.

Al-Abharī then gives a description of the general accident as "a universal said accidentally of that which is categorized under multiple different essences."

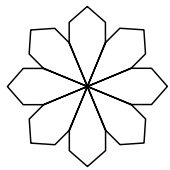
Exclusions from the definition of the general accident

By mentioning multiple different essences, al-Abharī excludes the species, close differentia, and special accident, since they are said of things that share the same essence. Genus and the distant differentia are excluded by his saying, "…[said] accidentally…," since both genus and distant differentia, despite being said of a multitude of things categorized under different essences, are said of things essentially; that is, the genus is said in answer to "What is it essentially?"

and the distant differentia is said in answer to "Which thing is it essentially?" with regard to the essential distinguishing factor that differentiates something from its distant genus.

The division of universals remains at five in number—genus, species, differentia, general accident, and special accident—however, the latter two accidents are each divisions of inseparable and separable. However, their being as such did not lead to listing four accidental universals—inseparable special accident, separable special accident, inseparable general accident, and separable general accident—just as the divisibility of genus and differentia into close and distant, respectively, did not make them count as four essential universals. While it would be correct to say that the essential universals are five in number and the accidental universals are four, totaling nine universals, it would seem that collapsing close and distant essentials into genus and differentia and collapsing separable and inseparable accidentals into special and general allowed for a simplified categorization.

Having completed the division of the expressions that signify conceptions, beginning with the simple and the composite and ending with the five universals, al-Abharī along with his commentator al-Fanārī have provided the reader with the necessary building blocks for constructing definitions, one of the two ways in which one moves from the known to the unknown. In the following chapter, al-Fanārī will explain how one produces complete and incomplete definitions and descriptions through various combinations of the five universals outlined above.



2

Regarding the Aims of Conceptions

The second chapter treats the aims of conceptions, namely, the "explanatory saying," which is synonymous with the "definiens" (*al-muʿarrif*).

Why is it called a "saying"?

The term 'saying' (*qawl*) is a technical term in the science of logic. It is a composite expression that has two or more terms. In view of this, the definiens is called an "explanatory saying" because a definiens is always composite, according to the early logicians. However, the later logicians said that it is composite most of the time, there being some instances of definiens with only one term. This latter opinion is not correct according to al-Fanārī, who opts for the opinion of the early logicians.

Al-Fanārī defends the first opinion—that of the early logicians—but before doing so, he informs the reader that the justification for the first opinion is not due to the composite nature of reflective reasoning. That is, definition and syllogistic argument are two subcategories of reflective reasoning, and they are the two ways that one comes to know previously unknown knowledge that is not immediate (*ḍarūrī*), inspired, revealed, or reported. The top node of this classification is reflective reasoning, and its two subcategories are definition and syllogism. One might say that every definiens must be composite because the definition of reflective reasoning is "the ordering of known matters," the term "matters" being in the plural. Since definiens and syllogism are subcategories of the ordering of known matters, they too must be composites of known matters that lead to obtaining knowledge of the previously unknown. This seems to be a sound argument; however, it assumes that reflective reasoning was first determined to be composite, which subsequently entailed that its subcategories would also be composite. However, the definition of reflective reasoning as an ordering of known matters is based on the understanding that each definiens is composite, and not vice versa. That is, the definiens was first determined to be necessarily composite, as was the syllogism, and

then, in seeking to define reflective reasoning, the composite nature of its two subcategories was taken into consideration. This means that the quiddity of 'definiens' was determined before the quiddity of 'reflective reasoning', and, as such, the reason that the definiens is always composite could not be based on reflective reasoning's being necessarily composite, as the latter claim of the composite nature of reflective reasoning is based on the former claim of the composite nature of the definiens. That the former relies on the latter when the latter relies on the former would be cyclical reasoning and therefore invalid.

However, if we give the conception of the quiddity of 'definiens' priority over the conception of 'reflective reasoning' and base our definition of the latter on the former, then for those who argued that a definiens could contain only one term and thereby not be composite, their definition of 'reflective reasoning' would need to take into account that one of its subcategories could be either simple or composite. In view of this, some logicians defined reflective reasoning as "obtaining a [single] matter or ordering matters" in order for their definition to be applicable to both the early and later logicians' opinions on the possibility of simple (non-composite) definitions.

The reason that the first opinion—that the definiens is always composite—is correct is not due to its relationship to the definition of reflective reasoning. Rather, it is that a definiens necessarily establishes something for something else, like establishing rationality (something) for an animal (something else). In view of this, if a definiens establishes something for something else, it is necessarily composite. Due to the definiens's necessarily being the establishment of something for something else, the logicians have said that there necessarily must be a rational contextual indicant validating transference from conceiving the definiens to conceiving the definiendum.[1] In view of this, if we were to define 'human' as 'the rational' (*al-nāṭiq*), it would be a composite definition, even if it has only one term, because the meaning of 'the rational' is the composite of 'thing' and 'which has rationality'. In other words, the composite meaning of the single term 'the rational' is 'thing that has rationality'. However, as discussed later in this chapter, when defining 'human' as 'the rational', it is possible to intend 'thing that has rationality' (which is an incomplete description), 'body that has rationality' (which is an incomplete definition), or even 'animal that has rationality' (which is a complete definition), depending on context and the intention of the definer.

1. See al-ʿImādī, *Ḥāshiyat Qūl Aḥmad*, 255 where al-ʿImādī considers possible implications of this statement.

Why is it called "explanatory"?

The definiens is called "the explanatory saying" due to its function of explaining and clarifying the quiddity of the thing being defined (definiendum) either

1. by clarifying the definiendum's essential properties, or
2. by explaining some of its properties from a perspective that distinguishes that object of definition from what is other than it.

In the first instance, explaining the quiddity of the definiendum through reference to its essential properties is definition (*ḥadd*), meaning that the definiens will either mention the proximate genus and proximate differentia (complete definition) or it will mention a distant genus and the proximate differentia (incomplete definition). The genus and differentia are essential properties (*dhātiyyāt*). In the second instance, the definiens will mention properties of the definiendum that distinguish it from what is other than it through mention of either a combination of essential and accidental properties that serve to distinguish the definiendum from what is other than it or a combination of accidental properties that when taken as a whole distinguish the definiendum from what is other than it. Distinguishing the definiendum through mention of these combinations of properties which include accidental properties is called description.

Definition of the Definiens

In view of this, the definiens is described as

> that thing the conception of which is a cause for the acquisition of the conception of the thing defined [definiendum], either through understanding its essential properties or a combination of properties at least one of which is accidental which distinguishes it from what is other than it.

In other words, conception of the definiens causes the acquisition of the conception of the definiendum.

Exclusions from the description of the definiens

This description of the term 'definiens' carefully excludes that which does not apply. What is excluded by the terms in this description? Assents and the necessary implicant in relation to its evident implicates. Assents are excluded

by use of the word "conception," and the necessary implicant is excluded by the term "acquisition." In saying, "…the conception of which…," it is known that the definiens is not an assent: it does not contain the conceptions of subject, predicate, copula, and judgment of the occurrence or non-occurrence of that copula. Rather, a definiens contains either conception of the essential properties of genus (close or distant) and differentia or conception of properties at least one of which is accidental which distinguish the definiendum from what is other than it.

Furthermore, through inclusion of the term "acquisition" in the description of definiens, it is known that the conception of the definiens is a cause for the acquisition—and not necessary implication—of the conception of the definiendum. Since in necessary implication the implicate (*lāzim*) occurs by mere conception of the implicant (*malzūm*), then such a form of cognition is not classified under acquisition.

Acquisition is a process whereby one is initially aware of an object or term but does not know its essential or accidental meanings, knowledge of which would move it from the unknown to the known. Upon cognizance of this object of awareness, one moves to its essential and accidental properties, which are compiled into a composite of properties by which its quiddative meaning is known or distinguished from that which is other than it. That is, acquisition is to begin with an initial object of awareness whose understanding one seeks and then move to its essential and accidental properties, some of which are compiled into a composite the conception of which leads to the sought understanding. In the case of the definiens, first, the definiendum as the initial object of awareness whose understanding is sought is posited, then its essential and accidental properties are identified, followed by compiling these into either a combination of essential properties—such as genus and differentia—or a combination of properties at least one of which is accidental; the conception of one of these combinations of properties leads to the sought understanding of the quiddity of the definiendum. This is different from conceiving of the definiendum and then conceiving of the definiens or vice versa, as this sort of evident entailment occurs without additional cognitive steps. In other words, acquiring the understanding of the definiendum through the definition is acquisitional, not immediate.

What is included by the terms of this definition? Both definitions and descriptions. That is, the use of the disjunctive particles "either" and "or" in the description along with what follows each particle are carefully chosen to ensure that both forms of definiens—definition and description—are included

under the definition given for the term 'definiens'. Were we to merely say, "The definiens is that thing the conception of which is a cause for the acquisition of the conception of the definiendum," without adding "*either* by its essence *or* from the perspective…," one might assume that only the complete definition is included and not the incomplete definition, the complete description, or the incomplete description. In view of this, the phrase "*either* by its essence *or* from the perspective…" ensures that the complete and incomplete definitions and descriptions are understood to be included in the definition of 'definiens'.

Finally, al-Fanārī clarifies that the division into "either its essence or from a perspective…" is not parsing out the segments of the category of definiens into definition and description, but, rather, it is classifying essential and accidental qualities of the definiendum to be used in the definiens. When he says, "…that thing the conception of which is a cause for the acquisition of the conception of the thing defined [definiendum]…," he is talking about the definiens which is "that thing the conception of which…." But when he continues with "…either through understanding [the definiendum's] essential properties or a combination of [the definiendum's] properties…," he is giving two divisions of sets of properties of the definiendum: either its essential properties or a combination that includes at least one accidental property. The sign that indicates that the division is of the definiendum's properties and not the definiens is that the disjunctive particles "either" and "or" are, in this case, only preventing mutual exclusion and not mutual inclusion. That is, the definiendum could never be absent of both its essential and accidental properties, and as such the definiens will either include a composite of only essential properties, only accidental properties, or a combination of essential and accidental properties. The definiens consists of selectively extracted properties found mutually included in the definiendum, properties which could never be entirely absent from the definiendum. Before moving on to potential challenges to the description of the definiens, al-Fanārī credits the previous discussion regarding the division produced through the use of the disjunctive particles "either" and "or" to Shams al-A'imma al-Iṣfahānī.

Objection to the description of the definiens

Having given a descriptive definition of the definiens, al-Fanārī addresses an objection that had been raised with regard to the definability of 'definiens'. The objection is that defining 'definiens' is not possible because if 'definiens' had a definiens, then the definiens of 'definiens' would need a definiens, which in turn would also need a definiens, *ad infinitum*. If an infinite regress is entailed,

then it is impossible to provide a definiens of 'definiens'.

One might be tempted to compare this conundrum to that of the question of whether existence exists. Al-Fanārī, however, rejects this comparison, saying that one does not answer the objection by saying that the definiens of 'definiens' is the selfsame definiens just as the existence of existence is the selfsame existence, because the claim of selfsameness for the existence of existence is not conceded. Al-Fanārī does not accept that the existence of existence is the selfsame existence—though he does not elaborate—and, as such, he does not accept that the definiens of 'definiens' is the selfsame definiens.

Response to the objection

Refusing the above solution, al-Fanārī offers two other possible responses to the objection, which are either

a. denying the entailment of an infinite regress since the definiens of 'definiens' does not require another definiens, or

b. denying that the regress is infinite.

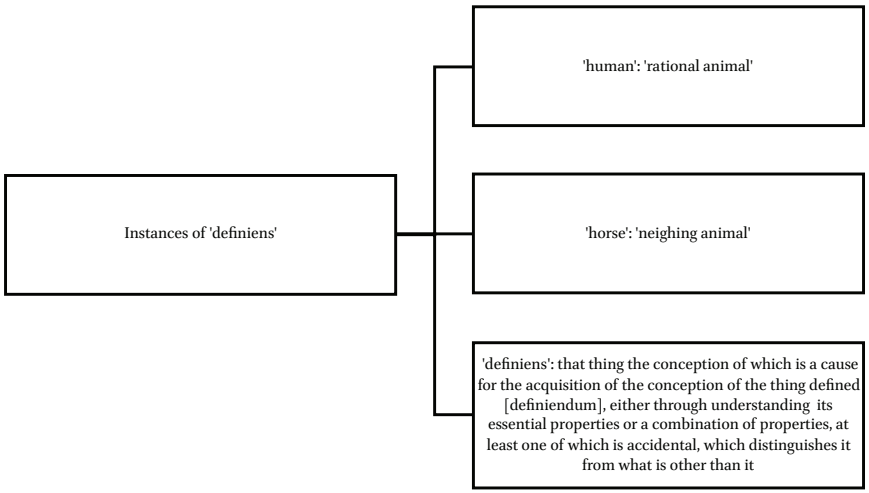
The first response—(a) above—is to deny the entailment of an infinite regress of definitions of 'definiens', claiming that the definiens of 'definiens' in and of itself does not require another definiens. That is, when one asks "What is a definiens?" and receives the response "that thing the conception of which is a cause for the acquisition…,"[2] that response is a terminal response, where no further explanation is needed. The reason that no further explanation is needed may be due to the fact that each of the parts of the definiens—'conception', 'cause', 'acquisition', 'thing'—is self-evident and not in need of further explanation. That is, a phrase whose understanding causes one to understand the qualities of the thing defined does not stand in need of additional explanation or definition. If not for that reason, then another reason that no further explanation is needed may be due to the fact that the parts of the definiens—'conception', 'cause', 'acquisition', 'thing'—are already known. This latter point might be an unnecessary redundancy, according to some commentators, but others distinguish it from the first reason in that the parts of the definiens are known by being derived from self-evident knowledge—though

2. The full description, for ease of reference, is: that thing, the conception of which, is a cause for the acquisition of the conception of the thing defined [definiendum], either through understanding its essential properties or a combination of properties—at least one of which is accidental—which distinguish it from what is other than it.

not self-evident in themselves—or possibly through revelation or inspiration.[3]

Having sufficiently answered the question "What is a definiens?" by providing a terminal definition of 'definiens' whose parts are self-evidently known, al-Fanārī then turns to the definiens of 'definiens' when given as part of the answer to the question "What are some examples of definiens?" Some possible responses to this question are 'rational animal', 'neighing animal', and 'that thing the conception of which is…'. The first is the definiens of 'human', the second the definiens of 'horse', and the third the definiens of 'definiens'. When the definiens of 'definiens' is an instance of 'definiens' qua object of division, it also does not require further definition, because it is already understood through the accidental perspective of being an instance to which the previously defined object of division ('definiens') applies.

So, just as the definiens of 'definiens'—meaning the phrase "that thing the conception of which is a cause for the acquisition…"—in and of itself does not need another definiens since it is a terminal response whose parts are self-evident, likewise, the definiens of the 'definiens' inasmuch as it is an instance of absolute 'definiens' does not need another definiens since its meaning is already known via an accidental perspective. That accidental perspective is the applicability of the already defined absolute 'definiens' qua object of division


Instances of 'definiens'
'human': 'rational animal'
'horse': 'neighing animal'
'definiens': that thing the conception of which is a cause for the acquisition of the conception of the thing defined [definiendum], either through understanding its essential properties or a combination of properties, at least one of which is accidental, which distinguishes it from what is other than it

3. Qūl Aḥmad, *Ḥāshiyat Qūl Aḥmad*, 280–1. See Qarah Khalīl's and al-'Imādī's glosses on Qūl Aḥmad for more details.

to each of its instances, including the definiens of 'definiens'.

Al-Fanārī anticipates this objection and states that it has already been shown in the discussion of the genus of 'genus' that what is more specific from one perspective may serve as a definiens so long as it is used from a perspective other than its accidental and more specific usage. That is, just as 'universal' could be more general than 'genus' in its definitional and essential sense, it could also be more particular in an accidental sense when subsumed under 'genus' in a division of genera. Likewise, the definiens of 'definiens' can be viewed in its definitional and essential sense as a terminal and self-sufficient definition, but it can also be viewed in a more particular and accidental sense of being an instance of the object of division 'definiens'. So long as one uses it in its more general sense, the fact that it can be found in its more specific sense does not harm the definition. Just as the objection regarding the genus of 'genus' and 'universal' is rejected, so too is the objection regarding the definiens of 'definiens', since, in matters that admit multiple perspectives, one only judges according to the perspective employed in that context. Switching perspectives to defeat an opponent would be a blameworthy move in disputation if intentional and mistaken if unintentional.

The second possible response—(b) above—to the objection that claimed that defining 'definiens' would lead to an infinite regress of definientia is merely to respond that regresses in subjective matters are not infinite—and therefore not absurd—since the regress ceases when mental consideration ceases. That is, no actual infinite—a rational absurdity—is claimed with subjective matters as the regress only continues for as long as the mind is occupied with it. There are two possible interpretations to this claim. The first is that, in this case, one would define 'definiens', then define 'definiens of "definiens"', then define 'definiens of "definiens of 'definiens'"'. Once one stops contemplating each new definiens, the regress ends, and therefore there is no claim of an absurd or vicious regress, since at any given moment, a finite number of definientia has been offered.[4] The second interpretation, stated by Qūl Aḥmad, is that the consideration ceases since the intellect considers the definiens of 'definiens' according to its essential meaning (i.e., "that thing the conception of which is a cause for the acquisition of…"), which requires no additional definition or proof. This interpretation relies on the correctness of the first response (i.e., response (a) above, namely, denying the entailment of an infinite regress since the definiens of 'definiens' does not require another definiens due to its

4. Al-Fawzī, Khulāṣa, 70.

parts being self-evident). While the latter interpretation is more satisfying, the former seems more likely to be what was intended.

Classification of the Definiens

So, if we describe the definiens as "that thing the conception of which is a cause for the acquisition of the conception of the thing defined [definiendum], either through understanding its essential properties or a combination of properties at least one of which is accidental which distinguishes it from what is other than it," then we know that the explanatory saying is either a definition (*ḥadd*) or a description (*rasm*). That is, if a definiens is entirely constructed from essential properties, then it is a definition, and if not, then it is a description, as explained in detail in what follows.

Definition and classification of the definition

After introducing the top node of the category tree for explanatory sayings, including a description of the definens—that saying that defines or describes the definiendum through inclusion of various combinations of its qualities—al-Abharī and al-Fanārī parse out four subcategories of the explanatory saying, namely, the complete and incomplete definitions and the complete and incomplete descriptions.

The definition (*ḥadd*) is defined as "a saying signifying the essence (*kunh*) of the quiddity (*māhiyya*) of the definiendum." If the definition consists of the entirety of the definiendum's essential properties, then it is called a complete definition. If the definition consists of some of the definiendum's essential properties, then it is an incomplete definition.

It is called a definition (*ḥadd*) because it is a thing that prevents others from entering into it. Lexically, *al-ḥadd* means "prevention." A definition defines the limits of inclusion and exclusion like a preventative gate that surrounds its proper definienda (sing. definiendum) and stops any from leaving and keeps any non-definienda from entering. It is considered complete or incomplete with regard to which essential properties are included within it. The complete definition is composed of the genus of the thing and its close differentia, such as 'rational animal' in relation to 'human'. The genus of 'human' is 'animal', and the close essential quality that differentiates it from all other things that share the genus of 'animal' is 'rational'. The incomplete definition is composed of the definiendum's distant genus and its close differentia, such as 'rational body'

with regard to 'human'. The distant genus of 'human' is 'body'; planets, stars, stones, trees, humans, and clams are all bodies in that they are composite substances occupying space. What distinguishes humans from other bodies? The closest distinguishing quality is rationality. As such, 'human' can be defined as 'rational body', though this is weaker than the complete definition of 'rational animal'. Another valid translation of a definition consisting of a distant genus and close differentia is "weak definition."

In anticipation of a possible objection, al-Fanārī explains that the definition given by al-Abharī is sufficient and does not need to include another form of the incomplete definition wherein only its differentia is mentioned, such as 'rational' given as the incomplete definition of 'human'. Other scholars, such as al-Kātibī and al-Tafāzānī, described the incomplete definition as consisting of either the distant genus and close differentia or just the close differentia. However, al-Fanārī rejects the claim that the close differentia alone serves as an incomplete definition because 'rational' is, in reality, a composite of multiple meanings, and meanings are what are considered in logic, not expressions. The term *nāṭiq*, translated here simply as "rational," is actually in the form of an active participle, meaning the one who does the act of rationalizing; it comprises the meaning of the act itself (rationalizing) and the agent of that action. *Nāṭiq* as an active participle, then, is more accurately translated as "a rationalizing one" or "a rationalizer" or "a rationalizing agent" or the likes. The definition of 'human' is more literally translated as "an animal, a rationalizing one" and as such, it is clear that *nāṭiq* is a composite of the meanings of the act of rationalizing and the agent of that act of rationalizing. There is an implicit genus, such as 'animal', 'body', or 'substance'. If that implicit genus were the proximate genus, then merely stating "*nāṭiq*" in answer to the question "What is a human?" would be a complete definition. If that implicit genus were the distant genus—such as 'body'—then merely stating "*nāṭiq*" would be an incomplete definition, and it would be exactly like saying 'rational body'. But, if its meaning were 'thing possessing rationality' or the likes, then it would not be a definition, because thingness is an accidental property. Rather, it would be a description due to the absence of a genus, which is a necessary component in definitions. 'Thing' is not a genus of 'human', whether close or distant.

Definition and classification of the description

The discussion then moves to descriptions, which are also divided into two categories: complete and incomplete. The description is called a *rasm* due its being a "sign" (*athar*). Both *athar* and *rasm* can be translated as "trace,"

"vestige," "mark," and "sign." The *athar* of a door is its *ʿalāma* (sign). What the various shared meanings have in common is that they are external to and follow from something essential and internal. The *athar* of a door is an external sign indicating something about what is inside and is connected to the thing itself. The description consists of at least one accidental property that follows from the essential properties of the definiendum.

The complete description is so called due to its resembling the complete definition in that both the complete definition and complete description consist of a close genus qualified by a distinguishing factor. The difference between the complete definition and the complete description is that the distinguishing factor is either essential (as in the complete definition) or accidental (as in the complete description). If the description does not consist of a close genus and an accidental distinguishing factor, then it is an incomplete description due to its falling short or being deficient in comparison to the completeness of the complete description.

Having completed a discussion of the justifications for naming each category of description, the discussion moves to the definiens of each category. Al-Abharī describes the complete description as that which is composed of the close genus of the definiendum and its inseparable accidents. He gives by way of example 'laughing animal' as a complete description of 'human'. The close genus of 'human' is 'animal', and it is distinguished from other animals by the accidental distinguishing factor of risibility or the capacity to laugh.

Al-Abharī's description of the incomplete description and treating of its examples requires a bit more interjection from al-Fanārī than his treatment of the complete description. The incomplete description is that which is composed of accidental properties which when taken as a whole specifically apply to a single essence. Al-Fanārī clarifies that this collective of accidental properties need not consist of only properties specific to the essence of the definiendum: the inclusion of one or more general accidental properties not specific to the definiendum found in the collective of properties that constitute the definiens does not affect the applicability of the incomplete description to its definiendum so long as at least one accidental property, even the last one in the list, is uniquely specific to the definiendum. This principle is exemplified in the example given by al-Abharī in the incomplete description of 'human' as 'one who walks on two feet (i.e., a biped), has broad fingernails, has clear hairless skin, stands upright, and is by nature capable of laughing'.

"Biped" excludes quadrupeds, but it does not, however, exclude others that walk on two feet, such as chickens or pigeons. "Has broad fingernails" excludes conical talons like those of birds, but it does not exclude cows and others that have broad nails. "Has clear hairless skin" excludes having skin covered by hair or fur, but it does not exclude that which is also hairless, such as fish. Excluded by "stands upright" is being bent over, but it does not exclude other animals that stand upright, such as kangaroos. Each of the first four qualities mentioned in al-Abharī's example of an incomplete description is found in species other than humans, so the inclusion of the final accidental property "by nature capable of laughing" serves to exclude all non-human species as it is an inseparable special accident that serves as the accidental distinguishing factor.

Objection to the example description of 'human'

Al-Fanārī now turns to an objection which he immediately indicates is not applicable. That objection which is occasionally mentioned is that some of the accidental qualities mentioned in the incomplete description of 'human' make others dispensable. For example, 'laughing' makes all of the previous four qualities dispensable, and 'clear-skinned' makes 'upright' dispensable and vice versa.[5]

Response to the objection

That 'laughing' does away with the need for the other four accidental properties, and that some of those accidental properties make others dispensable is not a valid objection because it is not a requirement of constructing incomplete descriptions that some accidents do not make other accidents dispensable. Furthermore, there is no need for debate when the aim of the author was to cite examples of a collection of accidents which, when taken as a whole, signify a single essence, rather than to give a proper definiens.

Interpretation of the definition of incomplete description and objection

Another objection is anticipated, namely, that the definiens of incomplete description is not properly inclusive of all possible members since al-Abharī should have added to the definiens that, in addition to the collection of accidents signifying a single essence, a single species-specific inseparable special accident can also serve as an incomplete description. For example, one could use only 'laughing' in an incomplete description as the species-specific accidental distinguishing factor which can only signify 'human'. In response,

5. Al-Fawzī, Khulāṣa, 74.

al-Fanārī draws from the argument mentioned previously with regard to an incomplete definition consisting of only the essential distinguishing factor, namely, the differentia, that what appears to be a simple term— 'laughing'—in fact has the status of a composite of meanings, since it signifies the agent and the act of laughing. In view of this, if what was intended by mere mention of 'laughing' was 'laughing animal', then it would be a complete description, and if what was intended was 'thing that possesses laughter', then it would be an incomplete description, since thingness is an accidental property, as mentioned previously.

Al-Fanārī continues the discussion of the different possible intended composite meanings when merely stating the singular expression 'laughing' and treats the possibility that the definer intended 'laughing body'. He uses this example as a bridge to discuss other combinations of properties that fall under the term 'incomplete description' but which are not included in the explicit language of al-Abharī's definition. 'Laughing body' consists of a distant genus ('body') and an inseparable accidental distinguishing factor ('laughing'), which was not a combination mentioned by al-Abharī. The scholars of logic considered it an incomplete description, and in view of this, in order to save al-Abharī's definition from the charge of being insufficiently inclusive of all possible members, al-Fanārī suggests that we must metaphorically interpret al-Abharī's definition in one of three ways:

a. One way to metaphorically interpret the definiens is that from the description of the incomplete description as "a collective of accidents," the reader was to understand through the rhetorical device of lexical preponderation (*taghlīb*) that the definition also includes the combination of a special accident and a distant genus. A common example of lexical preponderation is the use of *mu'minīn* (the masculine plural of "believer") to include both *mu'minūn* and *mu'mināt* (the feminine plural of "believer").

b. Another way to metaphorically interpret the definiens of incomplete description is to consider that al-Abharī was applying the name of the whole to the part. That is, when he described the incomplete description as "that which is composed of accidental properties which when taken as a whole specifically apply to a single essence," he treated "accidental properties" as the name of the whole, which could be applied to the part of a definiens consisting of the distant genus and special accident, that part being the special accident. Since the entirety that is composed of the essential and the accidental is itself accidental, the example of 'laughing

body' still falls under the definition given by al-Abharī, since "accidental properties" applies to 'laughing', and, likewise, when 'laughing body' is taken as a whole, it is a collective of properties that specifically applies to a single essence (i.e., 'human').

c. The third possible metaphorical interpretation of al-Abharī's definition aimed at saving it from the charge of being insufficiently inclusive is that he mentioned the most commonly used form of an incomplete description, namely, a collection of accidental properties that when taken as a whole specifically applies to a single essence. While a combination of distant genus and special accident is also a form of incomplete description, it is less common, and so al-Abharī opted to use the form that was predominantly in use.

Objection to description with a general and a special accident

Having salvaged al-Abharī's definiens of the incomplete description through metaphorical interpretation—a move that was questioned by commentators since metaphor is not supposed to enter into definitions—al-Fanārī then turns his attention to another related matter, concerning the inclusion of combinations of properties that were not covered by al-Abharī under the category of incomplete description.

The first example is a definiens composed of a general accident and a special accident, such as 'laughing thing'. One might say there is no benefit in such a definiens because the general accident does not lead to distinguishing the definiendum from other things (which is the aim of descriptions) nor does it indicate an essential property of the definiendum (which is the aim of definitions), while the overall purpose of defining things is to obtain one of these two benefits. The same critique could be applied to a definiens with a differentia and a special accident, such as describing 'human' as 'rational laugher'.

Response to the objection

Al-Fanārī responds that while it has been said that the overall purpose of defining things is either to obtain the benefit of distinguishing the definiendum from other things or to obtain the benefit of indicating an essential property of the definiendum, that claim may be true or it may be false. Whether the claim is defensible is irrelevant because the truth that deserves acceptance, according to al-Fanārī, is that the conception of a thing that includes the general accident and the special accident is stronger than its conception with

just the special accident. Likewise, the conception of a thing that includes the differentia and the special accident is stronger than conception with just the differentia. So clearly these two combinations of accidental properties have benefit since something without benefit cannot be more beneficial than something else.

The principle of the classification of definientia

The principle or rationale for the classification of definientia (sing. definiens) into four categories is that when the definiens is composed of only essentials mentioned in their totality, it is a complete definition; when the definiens is composed of only essentials but only some of them are mentioned, then it is an incomplete definition. A definiens that is not composed of only essentials but rather of a close genus and a special accident is a complete description. A definiens that is not composed of only essentials but rather composed of any combination that includes at least one accidental and is other than those constituting the complete description is an incomplete description. Based on this principle, the following combinations are all incomplete descriptions, even if al-Abharī's definition and examples did not address them directly:

a. the general accident with the differentia
b. the general accident with the special accident
c. the special accident with the differentia
d. and the distant genus with the special accident

Having treated the points of departure for conceptions in the first chapter—the five universals—and the aims of conceptions in the second chapter—the explanatory saying—al-Fanārī has provided the reader with the tools to construct or comprehend definitions and descriptions and thereby to move from the known to the unknown through the acts of defining and describing. Al-Fanārī will later introduce the reader to the other key means of obtaining new knowledge—the syllogism—but will first need to discuss its building blocks, namely, propositions.

3

The Points of Departure for Assents: Propositions and Their Properties (Such as Contradiction and Conversion)

Al-Fanārī begins the third chapter by identifying the points of departure for assents, namely, propositions and their properties such as contradiction, contrariety, and conversion. Propositions are sayings (*aqwāl*), either verbally expressed or rationally conceived. A 'saying' (*qawl*) is a composite that serves as the genus of both the verbally expressed and mentally conceived proposition. Therefore, a complete definition of verbally expressed propositions would be "the verbally expressed composite saying for which it would be valid that its speaker would be called truthful regarding that saying or untruthful." The complete definition for a mentally conceived proposition would be "the mentally conceived saying for which it would be valid that its thinker would be called truthful regarding it or untruthful." The remainder of the qualifications in the definiens—"…for which it is correct to say of the one who utters it that he is truthful in it or untruthful in it"—are the differentia, which excludes composite non-declarative sentences and restrictive sayings, because the veracity of the saying pertains to the correspondence of its judgment to what is actually the case in reality, belief, or both of them together, and the falsity of sayings pertains to the lack of such correspondence. The dominant opinion is that truth only pertains to the correspondence of the judgment to reality, where as its correspondence to belief or the combination of belief and reality are the opinions of the Muʿtazilī scholars al-Naẓẓām and al-Jāḥiẓ, respectively.

A proposition is a declarative sentence (*al-jumla al-khabariyya*), as opposed to a non-declarative sayings (*al-jumla al-inshāʾiyya*), which can include requests such as commands or prohibitions, wishes, expressions of amazement, contractual statements, and others. It is also distinct from restrictive sayings such as "the green car," "the knowledgeable scholar," etc.

Non-declarative and restrictive sayings do not contain judgments. A judgment is the conveyance of the knowledge of what is established in actuality. What is established in actuality is either the unification of the predicate with the subject or the lack of unification of the predicate with the subject. A judgment, then, informs of whether Y is predicated of X in actuality or whether Y is not predicated of X in actuality, whether this predication or lack of predication occurs in the past, present, or future. For example:

Past: 'X was Y' or 'X was not Y'

Present: 'X is Y' or 'X is not Y'

Future: 'X will be Y' or 'X will not be Y'

Non-declarative sayings like "Sit down!" and restrictive sayings like "the green car" do not convey information about the state of anything in actuality. Since they do not contain judgments, non-declarative sayings and restrictive sayings are not propositions.

Classification of propositions according to nexus and extremes: Categorical and hypothetical

Propositions are either categorical or hypothetical. Propositions contain two parts—called "extremes" (*aṭrāf*)—that are connected via a nexus. Each two-part proposition necessarily contains either the affirmation of the nexus between the first extreme and the second extreme or the negation of the nexus between the first extreme and the second extreme. If the proposition contains the kind of nexus wherein a thing (i.e., 'writer') is established for another thing (i.e., 'Zayd'), whether through affirmation or negation, then it is a categorical proposition. For example, in the proposition "Zayd is a writer," the nexus between 'writer' and 'Zayd' is affirmed. In the example of the proposition "Zayd is not a writer," the nexus between 'writer' and 'Zayd' is negated. Another possible and more literal translation for "categorical" (*ḥamlī*) would be "predicative," since the categorical proposition predicates Y of X.

If, however, the proposition contains the kind of nexus wherein something is established when another thing is established (i.e., "If the sun has risen then day has come"), or it contains the kind of nexus wherein disunion is established between one thing and another (i.e., "A number is either odd or even"), then this proposition, whether through affirmation or negation, is a hypothetical proposition. From these two stipulations, it is clear that there are two subcategories of hypothetical statements, the conditional hypothetical (If X, then Y) and the disjunctive hypothetical (Either X or Y). What is translated herein

as "hypothetical" (*sharṭī*) is elsewhere translated as "conditional," and what is herein called "conditional" (*muttaṣila*) is elsewhere translated as "conjunctive." Since English technical terminology is not consistent between translators, and sometimes the literal translation of an Arabic term applies to a different kind of proposition that shares that name in the English logic technical lexicon, the connection between the lexical and the technical meanings of the Arabic terms is often lost. In the case of the *sharṭiyya* proposition, a more literal translation would be "conditional proposition"; however, in English logic books, what is called the conditional is a subcategory of the *sharṭiyya*, namely, the *muttaṣila*. While "conjunctive conditional" and "disjunctive conditional" would be more faithful to the lexical meaning of *al-sharṭiyya al-muttaṣila* and *al-sharṭiyya al-munfaṣila*, respectively, their more common English technical equivalents are used herein, namely, the "conditional hypothetical," wherein "conditional" corresponds to "*muttaṣila*" and "hypothetical" corresponds to "*sharṭiyya*." That said, the reason it is called the *sharṭī* (literally "conditional" but technically "hypothetical") is because the *sharṭ* (condition) exists explicitly in the conditional hypothetical proposition (*al-sharṭiyya al-muttaṣila*) and implicitly in the disjunctive hypothetical proposition (*al-sharṭiyya al-munfaṣila*). When one says "A number is either even or odd," it effectively means, "If a number is even, then it is not odd, and if it is odd, then it is not even."[1] To get a sense of the presence of the condition, this could be rephrased as "A number is even on condition that it is not odd, and a number is odd on condition that it is not even." Due to the presence of this condition (*sharṭ*), the hypothetical proposition was named *al-sharṭiyya* (literally "the conditional").

Having given the definition of 'proposition' and provided a division of its various categories according to the nexus that connects the two extremes of the proposition, al-Fanārī follows al-Abharī to provide further explanation of the various components of each of the categorical and hypothetical propositions.

The parts of the categorical proposition

The first part of a categorical proposition is called the subject in English logic and grammar, but the lexical meaning of the Arabic technical term *mawḍūʿ* is "a placed thing." The subject is called "a placed thing" because it is placed in order to have something predicated of it. The second part of a categorical proposition is called the predicate (*maḥmūl*) due to its being predicated of the

1. Qūl Aḥmad, *al-Fawāʾid*, 78.

first part (i.e., the subject). For example, in the proposition "Zayd is a writer," the logical order of producing this proposition is that one first posits the word "Zayd" in order to predicate the word "writer" of Zayd thereafter. It is important to note that the order in which the subject and predicate are expressed is not relevant to this explanation, for one could say, "Sayeth the man such and such," but this would not make "sayeth" the subject or "the man such and such" the predicate. Rather, "the man" is the subject, and "sayeth…such and such" is the predicate, and these two parts—subject and predicate—when connected by the copula produce a categorical proposition.

The parts of the hypothetical proposition

As for the parts of the hypothetical proposition—whether conditional or disjunctive and whether through entailment or coincidence (*luzūmiyya* or *ittifāqiyya*)—the first part is called the antecedent (*muqaddam*). It is thus named due to its naturally and logically being put first even if it might be put last in the context of expression. The second part of a hypothetical proposition is called the consequent (*tālī*) due to its following the antecedent.

Based on the division of kinds of propositions and the discussion of each proposition's syntactic parts, al-Fanārī has prepared the reader for al-Abharī's exposition of the quality (affirmative or negative) and quantity (singular, quantified, or unquantified) of propositions.

Quality

Whether categorical, conditional hypothetical, or disjunctive hypothetical, the proposition is either affirmative or negative. If the judgment in the proposition consists of the affirmation of a nexus between the subject and the predicate or between the antecedent and the consequent—whether this nexus establishes X for Y, makes X necessarily entail Y, or posits a mere disjunctive coincidence between X and Y—then the result is an affirmative proposition. An example of an affirmative categorical proposition is "Zayd is a writer." Examples of affirmative hypothetical conditional propositions include "If the sun has risen then day has come." An example of an affirmative disjunctive proposition is "Numbers are either odd or even."

If the judgment in a proposition consists of the negation of a nexus between subject and predicate or between antecedent and consequent, then it is a negative proposition. For example, "Zayd is not a writer" is a negative categorical proposition. A previously mentioned example of the negative

hypothetical conditional proposition is "It is not the case that if the sun has risen, then it is night." As for an example of a negative hypothetical disjunctive proposition, al-Abharī previously cited "It is not the case that numbers are either even or divisible into equal numbers."

Quantity

Singular

Each proposition, whether affirmative or negative, categorical or hypothetical, is either singular (*makhṣūṣa*), quantified (*maḥṣūra*), or unquantified (*muhmala*). A standard English technical term for *makhṣūṣa* is "singular," and this has been used throughout the translation to facilitate comparative study. However, the lexical meaning of the Arabic term—"specified"—is perhaps more instructive since what is meant is that the proposition is affirming or denying a nexus with regard to a specified individual subject. Furthermore, that which is specified might be a singular individual, such as Zayd, as found in the categorical proposition "Zayd is a writer," or, alternatively, a specific group of people, such as "the 2024 graduating class." As such, the lexical meaning of "singular" in this case should not distract the reader from the more inclusive and useful lexical meaning found in the Arabic meaning of "specified."

Quantified

Quantified propositions are those propositions wherein an unspecified (non-singular) subject is mentioned and its quantity with regard to universality or particularity is also mentioned, as in "All cows eat grass" or "Some trees are tall." That is, the quantified proposition is divided into either universal or particular. The subject of the universal proposition is every instance to which the term might apply. Examples of universal quantified propositions include "All cows eat grass" and "No Zebra flies." As for particular propositions, this is when the quantity of subject matter is restricted to some (at least one) but not necessarily all, such as "Some authors write fiction" and "Some authors do not write fiction."

When quality and quantity of propositions are considered, the resultant division is limited to the following eight kinds of categorical propositions:

	Affirmative	Negative
Singular	Zayd is a writer.	Zayd is not a writer.
Unquantified	Cats are good pets.	Cats are not good pets.
Quantified Universal	All cows eat grass.	No cow eats meat.
Quantified Particular	Some trees are tall.	Some trees are not tall.

Al-Fanārī mentions that two are singular, two are unquantified, and four are quantified. The reason for the delimiting of categories to these eight propositions is because every affirmative or negative categorical proposition either consists of a judgment (*ḥukm*) upon a specified subject (*mawḍūʿ mushakhkhaṣ*)—which results in what is herein called the singular proposition—or it consists of a judgment upon an unspecified (i.e., non-singular) subject. That unspecified subject is either spoken of quantitatively through mention of a quantifier—either "all" or "some"—or no quantifier is mentioned, resulting in quantified propositions or unquantified propositions, respectively.

Unquantified

Unquantified propositions are those wherein an unspecified subject is mentioned (as opposed to singular propositions, where the subject is specified), but the quantity of the subject is not clarified. An example is "Cats are good pets." The speaker did not quantify the proposition with "all" or "some," nor did he specify or single out a specific individual or group, such as Garfield or Istanbul's street cats.

Conditional and Disjunctive Hypotheticals

As for hypotheticals, al-Fanārī follows the same logic of the above division, with some adjustment for the difference between the kinds of judgment contained within categorical and hypothetical propositions. As with the categorical proposition, each category of the hypothetical proposition—whether conditional or disjunctive—is divided into two singular, two unquantified, and four quantified propositions, totaling sixteen hypothetical propositions. Examples are as follows:

Hypothetical Propositions	Affirmative	Negative
Singular Conditional	Tomorrow morning, if the rooster crows, my sleep will be disrupted.	Tomorrow evening, it is not the case that if the rooster crows, my sleep will be disrupted.
Singular Disjunctive	After eating two burgers, either Zayd will stop eating or he will be unhappy.	When he has just fasted, it is not the case that either Zayd will stop eating or he will be unhappy.
Unquantified Conditional	If the sun has risen, then day has come.	It is not the case that if the sun has risen, then night has come.
Unquantified Disjunctive	Either a number is even or it is odd.	It is not the case that either a number is even or it is divisible into two parts.
Quantified Universal Conditional	It is always the case that if the muezzin gives the call to prayer, the prayer's time has entered.	It is never the case that if the muezzin gives the call to prayer, dinner is ready.
Quantified Universal Disjunctive	It is always the case that either a number is even or it is odd.	It is never the case that either a number is even or it is divisible into two parts.
Quantified Particular Conditional	It is sometimes the case that if the muezzin gives the call to prayer, then the time of the noon prayer has entered.	It is sometimes not the case that if the muezzin gives the call to prayer, then the time of the noon prayer has entered.
Quantified Particular Disjunctive	It is sometimes the case that either the man is standing or he is sitting.	It is sometimes not the case that either the man is standing or he is sitting.

The reason for the delimiting of categories to these sixteen propositions is because every affirmative or negative hypothetical proposition either consists of a judgment (*ḥukm*)—whether conditional or disjunctive—in a specified time or state, which results in a singular proposition, or it consists of a judgment in an unspecified time or state. An example of a judgment pertaining to a specified time is "If a rooster crows *now*, I will not go back to sleep." Whether a given rooster is specified or not is irrelevant; only the specification of the time is what is considered. An example of a judgment pertaining to a specified state is "If a visitor arrives by boat, I will honor him." In this example, the specificity of the visitor—king, queen, mail carrier, etc.—is not relevant; only the specificity of the state or manner of arrival (i.e., by boat) is considered.

If the proposition consists of a judgment in an unspecified time but it has been distinguished whether the judgment applies to all or some of that time, then the proposition is quantified. That is, while the exact time in question is not specified, the amount of time is distinguished by being either all of the time in question or some of it. An example of an unspecified universally quantified hypothetical proposition is "Whenever the muezzin Zayd gives the call to prayer, the time for prayer has entered." That is, in every instance of time wherein the muezzin Zayd gives the call to prayer, the time for prayer has entered. Which prayer, which day, which year, none of these are specified; however, each and every instance wherein the call to prayer is given by the muezzin Zayd has been distinguished as a time in which the time of prayer has entered. It is not relevant that Zayd is specified, as only the time's specificity or lack of specificity is relevant.

An example of an unspecified particular hypothetical proposition is "Sometimes, if the muezzin gives the call to prayer, then the time of the noon prayer has entered." What is particularized in this example is the time in which the conditional event occurs; in some particular instances wherein the muezzin gives the call to prayer—and not every instance wherein he gives the call to prayer—that call will be for the announcement of the entering of the noon prayer's time.

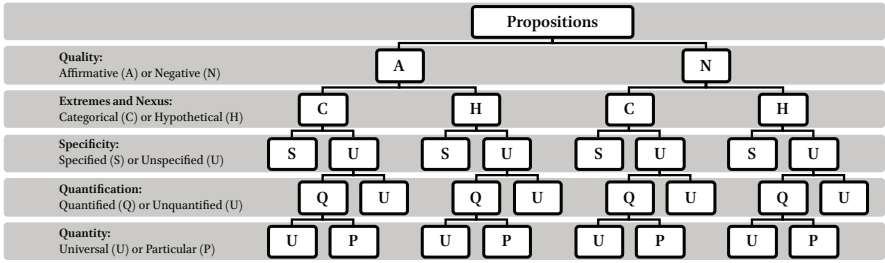
If an unspecified time has not been distinguished by whether the judgment occurs in all or some of the instances, then the proposition is unquantified. That is, it has not been mentioned whether the judgment applies to a specific time, some times, or all times. For example, in the proposition "If I eat chicken, I will feel content," it has not been stated whether this conditional judgment applies to every instance, some instances, or only this specific instance of Eid al-Fitr.

The upshot is that times and states in hypothetical propositions—such as the specific moment in which the rooster crowed, all the moments in which the call to prayer occurred, or some of the moments in which the call to prayer occurred—have the same status as individuals of the subject in the categorical proposition. That is, just as the three types of categorical propositions—individual, quantified, and unquantified—are determined by whether the subject of the judgment is specified, quantified, or unquantified, similarly, the three types of hypothetical propositions are determined by whether the time or state in which the judgment occurs is specified, quantified, or unquantified. Restated, categorical propositions are divided according to the judgment being upon a specified, quantified, or unquantified subject, whereas hypothetical propositions are divided according to the judgment being upon a specified, quantified, or unquantified time or state.

In summary, the judgment contained within a proposition is either affirmative or negative. The judgment within each proposition—whether affirmative or negative—is either the ascription of a predicate to a subject (as found in the categorical proposition) or the ascription of a consequent to an antecedent (as found in the hypothetical proposition). Each kind of affirmative or negative categorical proposition contains a judgment which is either upon a specified subject or an unspecified subject. The unspecified subject is either a distinguished by a quantifier or not distinguished by a quantifier, and, as such, the judgment is either upon a quantified or unquantified subject. The unspecified subject that is distinguished by a quantifier is either distinguished by a universal or particular quantifier, and, as such, the judgment is either upon a universally quantified subject or upon a particularly quantified subject. Likewise, each kind of affirmative or negative hypothetical proposition contains a judgment which is either upon a specified time or state or an unspecified time or state. The unspecified time or state is either distinguished by a quantifier or not distinguished by a quantifier, and, as such, the judgment is either upon a quantified or unquantified time or state. The unspecified time or state that is distinguished by a quantifier is either distinguished by a universal or particular quantifier, and, as such, the judgment is either upon a universally quantified time or state or upon a particularly quantified time or state.

In this division, al-Fanārī sets out to divide the proposition in order to reach the forms of the singular, quantified, and unquantified categorical and hypothetical propositions, both affirmative and negative. The object of classification is the proposition, and the basis of division at the first level is the quality—affirmative or negative—of the judgment. The basis of division at

the second level regards the extremes and the nexus that unites them. The basis of division at the third level is specificity, either of the judged subject in the categorical or the judged time or state in the hypothetical. The basis of division at the fourth level regards the quantification or non-quantification of the judged subject in the categorical proposition and the quantification of the judged time or state in the hypothetical proposition. The basis of division at the fifth level is the is the actual quantity, the universality or particularity of the quantity of the judged subject in the categorical proposition, and the universality or particularity of the quantity of the judged time or state in the hypothetical proposition.



Objection to the division

Having produced a comprehensive division of the categories of propositions, al-Fanārī anticipates an objection, namely, that his categorization is not encompassing of all possible subcategories due to the exclusion of natural propositions (*al-ṭabiʿīyya*). Singular, quantified, and unquantified are types of categorical propositions which establish something for something else and include a judgment on the particulars that fall under the subject of the proposition. For example, the proposition "All cows eat grass" contains the judgment that eating grass is predicated of all cows. The subject of this proposition signifies all particular instances that fall under the extension of the term 'cow'. Natural propositions, on the other hand, are also categorical propositions which establish something for a something else, but they do not apply a judgment to the particular instances of the subject. Rather, they affirm something more general for the subject, namely, a nature. That is, in the proposition "Human is a genus," the term 'human' is not intended to signify a multitude of instances under the extension of its meaning; rather, the term 'human' signifies a nature, and 'genus' is predicated of that nature. The predicate 'genus' is more general than the subject 'human', unlike when the more specific meaning 'eating

grass' is predicated of the more general meaning 'cow'. Natural propositions are not used in the arguments and proofs found in the logical, philosophical, and astronomical sciences, but they are propositions, and as such should be included in a classification of propositions, the objector claims.[2]

Response to the objection

Al-Fanārī responds by bringing the objector's attention to the intended object of classification, which is the proposition as used in the sciences—logic, philosophy, and astronomy—and in producing conclusions (*intājāt*). Those propositions used in the sciences, unlike natural propositions, are those that contain judgments upon the particular instances of the subject, not those that contain judgments upon the nature of the subject. As for those used in producing conclusions, while one might object that singular propositions should also be excluded and as such al-Fanārī is being inconsistent in his classification, some commentors respond in his defense that sometimes, though rarely, singular propositions are also used in the production of conclusions.[3] Al-Fanārī refers the reader to the longer commentaries for further discussion of this point, but he has made his argument that the division is sound since the object of division was only the proposition used in the sciences and producing conclusions.

Singular and Quantified Propositions

After providing and defending the classification of propositions into singular, quantified, and unquantified, al-Fanārī returns to al-Abharī's division of the same three categories of propositions, expanding its content with examples, clarifications, and a discussion of quantifiers. Beginning at the top of the classification of propositions, al-Fanārī explains that each affirmative and negative proposition is either singular—as mentioned previously when examples such as "Zayd is a writer" were given—or it is quantified. If it is quantified, it is either universal and quantified as in the examples of "Every human is a writer" and "Nothing (or no one) from among humans is a writer," or it is particular and quantified. Examples of particular and quantified include "Some humans (or one from among humans) are writers" and "Some humans (or one from among humans) are not writers." Alternatively, one could state, "It is not the case that

2. See al-Fawzī, *Khulāṣa*, 83; Qūl Aḥmad, *al-Fawā'id*, 82; Khaled El-Rouayheb, *Relational Syllogisms and the History of Arabic Logic, 900–1900* (Leiden: Brill, 2010), 178.
3. Qūl Aḥmad, *Ḥāshiyat Qūl Aḥmad*, 326–7.

some humans are writers," or, "It is not the case that all humans are writers." From the examples given by al-Abharī, the reader comes to know that the quantifier (*sūr*) in the categorical proposition for the affirmative universal is "all," and for the affirmative particular is "some" or "one." Also, one learns that the negative universal it is "nothing" or "no one," and in the negative particular "not all" and "not some" and "some not."

In addition to the quantifiers commonly used in categorical propositions, al-Fanārī also provides examples of those used in hypothetical propositions. The universal affirmative quantifiers are "always" (*dā'iman*), "whenever" (*kullama*), "when" (*matā*), "whenever" (*mahmā*), and any other similar expressions. The affirmative particular's quantifier is "in some cases it is" (*qad yakūn*). The negative universal's quantifier is "never" (*laysa al-battata*) and the negative particular's are "sometimes it is not" (*qad lā yakūn*), "not always" (*laysa dā'iman*), and "not whenever" (*laysa kullamā*). Mentioning the quantifiers given herein is intended to give examples that are well known and commonly in use, not to encompass all possibilities. Examples of additional quantifiers in affirmative universal categorical propositions include terms such as "each and every" (*qāṭibatan*), "all" (*kāffatan*), "all" (*ṭurran*), and the all-inclusive definite article (*lām al-istighrāq*). Al-Fanārī cites Ibn Sīnā's book entitled *al-Shifā'* as reference for these examples.

Unquantified Propositions

If the affirmative or negative proposition is neither singular nor quantified, then it is called unquantified due to the lack of a quantifier in the proposition. Examples of the unquantified categorical proposition include "Man is rational." Examples of the hypothetical proposition include "If (or when) Zayd comes then I will honor him." The unquantified proposition functions like a particular proposition because the general judgment upon the individual instances of an unspecified subject (e.g., the judgment upon any instance of 'man' from "Man is rational") and the explicit judgment on some of the individuals (e.g., "Some men are rational") are mutually entailing in every respect. For example, the unquantified proposition "Americans like football" passes judgment on Americans in general without mentioning which individual citizens like football. This is akin to saying "Some Americans like football" as, in both cases, the referent of the unquantified and quantified subject 'Americans' will be at least some Americans. Whenever the judgment is affirmed for the individuals in general, it is affirmed for some of them and vice versa. If some Americans

like football, then in a strictly logical sense, you can also say, "Americans like football," despite the fact that fans exclusively loyal to their baseball teams might object.

In a similar manner, the unquantified hypothetical proposition also functions like a particular hypothetical proposition. This is because the judgment quantified by a particular stretch of time and the judgment without a quantified time are mutually entailing. The first is a quantified particular proposition, analogous to "Some Americans like football" in the categorical proposition, and the second is an unquantified proposition, analogous to "Americans like football." An example of the quantified hypothetical proposition is "Sometimes, when Zayd visits, we honor him." An example of the unquantified proposition is "When Zayd visits, we honor him." In the quantified proposition, the judgment is affirmed for some of the times in which Zayd visits, even if those times are not explicitly mentioned. In the unquantified proposition, there is no reference to time, but it is understood that the proposition, if affirmed, is affirmed of at least some moment of time. If you honor Zayd sometimes when he visits, you can say, "When Zayd visits, we honor him," or you can be more specific and say, "Sometimes, when Zayd visits, we honor him."

Types of Conditional Propositions

Having completed his own division of propositions previously and now having commented on al-Abharī's division, al-Fanārī follows al-Abharī's text to a hitherto unexplored subdivision of hypothetical conditional propositions. The conditional hypothetical is of two types because either the judgment of conditionality within the proposition is built on entailment (*al-iqtiḍā'*) or it not built on entailment but rather is merely coincidental.

The entailing conditional proposition (*luzūmiyya*)

The entailment in the entailing conditional proposition either stems from the antecedent's being the cause of the consequent (as in the example "If the sun has risen then day has come") or from the consequent's being the cause of the antecedent (as in the example "If the day has come then the sun has risen"). Or, another reason for the entailment relationship is because the antecedent and the consequent are each effects of a single cause, like "If the day has come then the world is lighted." The rising of the sun is the single cause of both the coming of day and the world's being lighted. Also included in this category of

entailing conditional propositions whose cause of entailment is two effects arising from a single cause is the conceptual correlation (*al-taḍāyuf*) between the antecedent and consequent, as in the example of "If Zayd is the father of ʿAmr, then ʿAmr is Zayd's son." [4] Conceptual correlation is when two things are such that you cannot conceive of one without the other, such as the relation between 'father' and 'son'. Begetting or reproduction is the single cause of both the antecedent "Zayd is the father of ʿAmr" and the consequent "ʿAmr is the son of Zayd."

The coincidental conditional proposition (*ittifāqiyya*)

The other kind of hypothetical conditional proposition is the coincidental conditional proposition. Rather than being built on entailment, the judgment of conditionality is only due to coincidence between the antecedent and consequent rather than an entailing relationship. For example, the proposition "If humans are are rational then donkeys bray" expresses a condition, namely, that the donkey's braying is conditional upon man's rationality. However, the judgment of conditionality between the rationality of humans and the braying of donkeys is only by coincidence. That coincidence is that they are created with these qualities, and as such it is expected that if one finds donkeys braying one will find humans being rational. But that co-occurrence of rationality and braying is not because there is any causal entailment between rationality in humans and braying in donkeys. Any combination of naturally existing qualities in the universe—the chirping of birds, the boiling point of water, the redness of strawberries—could be stated in a conditional proposition, and while the antecedent will predictably occur alongside the consequent, the lack of a known and demonstrable causal relationship necessitates a coincidental rather than entailing relationship.

Objection to the claim of coincidence and response

Anticipating an objection to the claim of coincidence between rationality and braying, al-Fanārī clarifies that the meaning of a lack of entailment is the lack of knowledge of entailment by the one making the judgment (*ḥākim*), not that there does not exist an entailment relationship in actual reality (*nafs al-amr*). If there is in actuality a causal relationship between the human's rationality and the donkey's braying but that causal entailment relationship is not known to the one claiming that their relationship is merely coincidental,

4. Al-Fawzī, *Khulāṣa*, 87.

the actual causal relationship has no bearing on the proposition's being deemed a coincidental conditional proposition. If one learns, however, of an actual causal entailment relationship between rationality in humans and braying in donkeys, then the proposition "If man is rational then the donkey brays" would be judged to be an entailing conditional proposition. The same reasoning applies to those conditional propositions that are given as examples of entailing conditional propositions, such as "If the sun has risen then day has come."[5] If the one stating this proposition did not know that there was a causal entailing relationship between sunrise and daytime, then it would actually be considered coincidental. At this point in the discussion, the coincidental proposition is that wherein entailment between the antecedent and the consequent is not known, even if there is entailment in reality.

To understand the objection that al-Fanārī anticipates, it is helpful to notice that the framing of the entailing conditional proposition with which the coincidental proposition is contrasted is provided by examples from natural causes, rather than appeals to divine creative causality. That is, thus far, the hypothetical entailing conditional proposition appears to demand one of three types of causal entailment:

1. A entails B: "If (A) the sun has risen then (B) day has come."
2. B entails A: "If (A) the day has come then (B) the sun has risen."
3. C entails both A and B: "If (A) the day has come then (B) the world is lighted." As stated earlier, the conditional conjunction between (A) and (B) is entailed by (C) the sun's having risen.

With examples that draw on either an Avicennian natural law or *kalām*-theology occasionalist view of predictable cause and effect relationships in the natural world, if one claims that entailment means the inseparability of the antecedent and consequent and that inseparability is due to the predictable laws of nature or the definitional meanings of the particular antecedents and consequents, then it appears that all three categories of causal entailment mentioned above sufficiently distinguish entailing conditional relationships (like the relationship between sunrise and daytime) from coincidental conditional relationships (like the relationship between rationality and braying). However, if entailment merely means inseparability, without being limited to natural causality, then an appeal to divine causality would open the door to an objection that reduces all conditional propositions to entailing propositions.

5. Qūl Aḥmad, *Ḥāshiyat Qūl Aḥmad*, 332–3.

While rationality and braying are clearly not causally connected in the manner of the first two types (A entails B, B entails A), an appeal to divine causality renders the third type of entailment relationship applicable to rationality and braying, thereby making the proposition in which they are antecedent and consequent an example of an entailing conditional proposition.

That is, rationality and braying are inseparable co-occurrences since they are both willed by Allah and will exist so long as Allah wills them to exist. While in this case, the single cause of the rationality (the antecedent A above) and the braying (the consequent B above)—namely, Allah's creative act (C above)—is not a natural cause in the way that sunrise (C) causes both the arrival of day (A) and the lighting of the world (B), if entailment were merely inseparability, then this reference to the ultimate (divine) cause of the antecedent and consequent which makes their predictable and unceasing co-occurrence inseparable would render the conditional proposition "If humans are rational, donkeys bray" an entailing proposition since entailment means nothing more than inseparability.

However, since al-Fanārī explicitly clarified that "lack of entailment" as used in the description of coincidental conditionals does not mean the lack of entailment in actual reality but rather the lack of the *knowledge* of entailment, the following objection to al-Abharī's example of rationality and braying would not apply:

So long as man and donkey both persist in existence, their complete cause (i.e., Allah) persists, so the separation of one from the other is impossible. We did not mean by "entailment" anything other than lack of separation of the antecedent and the consequent.

Al-Fanārī's potential objector reduces entailment to the lack of the separation of antecedent and consequent, whereas al-Fanārī has defined entailment as the lack of the *knowledge* of the separation of antecedent and consequent. As such, one could imagine a scenario wherein the one judging the conditional conjunction between rationality and braying either was not aware that Allah was in reality the ultimate cause of those qualities or was not referring to divine causality and, as such, did not know of any created natural cause.

Furthermore, one could dispense entirely with imagining the judge to be ignorant of Allah's divine power; Qūl Aḥmad suggests that coincidental conditional conjunctions are merely propositions wherein the judgment is not built on the affirmation of an entailment relationship, even if one is known to exist. Qarah Khalīl further adds that the material content of an entailing

and coincidental proposition could be identical, and context would dictate how to identify the category of the proposition.[6] When the commentators' discussions are taken into consideration, the coincidental proposition can be said to be that wherein there is either no knowledge of inseparability or there is knowledge of inseparability but that inseparability is not considered in the particular proposition. So while one knows that, ultimately, Allah is the complete cause of the perpetual conjunction of rationality in humans and braying in donkeys, if one is only considering the question from the perspective of predictable causes and effects in nature, then the lack of a natural causal entailment is sufficient to describe the conjunction of rationality and braying as coincidental, even if, from the perspective of ultimate divine causality, their predictable conjunction would be entailing.

Propositions that appeal to natural causes—whether viewed through a lens of natural law or occasionalist contingency—are the most obvious and useful examples of coincidental conditionals and indeed the most fruitful in sciences that rely on predictable cause and effect relationships in the natural world (biology, *fiqh*, chemistry, etc.). However, the logicians appear to have pushed the bounds of the coincidental conditional proposition to its furthest defensible limits, reducing it to a proposition not built on a judgment of entailment between antecedent and consequent, even if such an entailment might exist in reality.

The perpetual proposition is more general than the necessary proposition

Returning to al-Fanārī's discussion of the anticipated objection, so long as one understands entailing to mean the lack of the knowledge of separability rather than the absolute lack of separability, the reference to divine will and power as the complete cause of the inseparability of all connections in the created world is rendered a harmless objection to rationality and braying being coincidental, since the judgment of coincidence could be made without consideration of entailment. Furthermore, the reasoning used in successfully refuting the aforementioned objection also resolves another potential problem that some historical interlocutors had considered, which was that the perpetual proposition (*al-dā'ima*) is more general than the necessary proposition (*al-ḍarūriyya*). No further explanation is given by al-Fanārī, so the reader must turn to the copious commentary tradition to understand the issue. A summary of the various commentators is as follows:

6. Qarah Khalīl, *Ḥāshiyat Qūl Aḥmad*, 332–3.

A perpetual proposition is one wherein the ascription of the predicate to the subject—whether affirmative or negative—is perpetual (it holds so long as the subject exists) without considering whether or not it is also necessary.[7] An example is "It is always the case that every human is an animal." That is, so long as the human exists, it is an animal. The necessary proposition, on the other hand, is one wherein the ascription of the predicate to the subject is furthermore *necessary* so long as the subject exists. Necessity is the impossibility of separation between the subject and predicate, such as "It is necessarily the case that every human is an animal." That is, so long as the human exists, it is necessarily an animal.

Al-Fanārī aims to defend the claim that the perpetual proposition is more general than the necessary proposition. That claim is held by the later scholars of logic, and it is that whenever the necessary proposition is realized, so too is the perpetual proposition, but the opposite is not the case. An example of the realization of the perpetual proposition upon the realization of the necessary proposition is "Every human is rational, by necessity; therefore, every human is rational, perpetually." An example of the non-realization of the necessary proposition upon the realization of the perpetual proposition is "The planets are perpetually moving; however, their movement is not necessary." That is, it is possible that the planets could be still, even if their stillness has never been witnessed. In other words, although the planets are always moving, it is rationally possible that they could always be still or even only sometimes still.

The opponent, however, claims that the perpetual proposition is not more general than the necessary proposition and that, rather, they are coextensive (*musāwiyān*). That is, whenever either of them is realized, so too is the other. Furthermore, the perpetuity of the affirmation of the predicate for the subject is an effect of a perpetual cause, and hence that affirmation is necessary.

The response to this claim is to remind the opponent of the definition of the perpetual proposition, that it is one wherein the affirmative or negative ascription of the predicate to the subject is perpetual—so long as the subject exists—without consideration of necessity. What was intended by the stipulation that necessity is not considered in the perpetual proposition is that the one making the judgment does not consider or lacks knowledge of the presence or absence of necessity, not that perpetual proposition's nexus is not necessary in actual reality.

7. Qūl Aḥmad, *Ḥāshiyat Qūl Aḥmad*, 333.

Just as al-Fanārī corrected the view that coincidence is not the lack of inseparability but rather the lack of the knowledge of inseparability, so too do the proponents of the perpetual proposition's being more general than the necessary proposition point out that perpetuity does not mean the lack of necessity but rather the lack of the knowledge of necessity. The commentators clarify that the "lack of knowledge" includes the lack of consideration and the lack of basing the judgment on…."[8]

So, in summary, coincidence is not entailing, because entailing is "lack of knowledge of, consideration of, or basing the judgment on separability," not "lack of separability." Likewise, perpetual propositions are more general than necessary propositions, because perpetual—like coincidental—includes the condition of "lack of knowledge of, consideration of, of basing the judgment on necessity."

Opponent	Resultant Claim	al-Fanārī's Definition	Resultant Claim
Entailment is lack of separability	Rationality as antecedent and braying as consequent are not valid examples for coincidental propositions, because both could be inseparable and entailed by Allah's will and power (since He is the complete and ultimate cause of their existence)	Entailment is lack of knowledge of (i.e., consideration of, basing on) separability	Rationality as antecedent and braying as consequent are valid examples for coincidental propositions because entailment qua inseparability is not considered, even if it entailment exists in actual reality, as in the case of Allah's power and will being the ultimate entailing cause of their co-occurrence
Perpetual proposition is one wherein the affirmative or negative ascription of the predicate to the subject is perpetual, so long as the subject exists	Perpetual propositions and necessary propositions are coextensive, or mutually entailing	Perpetual proposition is one wherein the affirmative or negative ascription of the predicate to the subject is perpetual—so long as the subject exists—without consideration of necessity	Perpetual propositions are more general than necessary propositions, regardless of whether or not ascription is necessary when perpetual causes exists

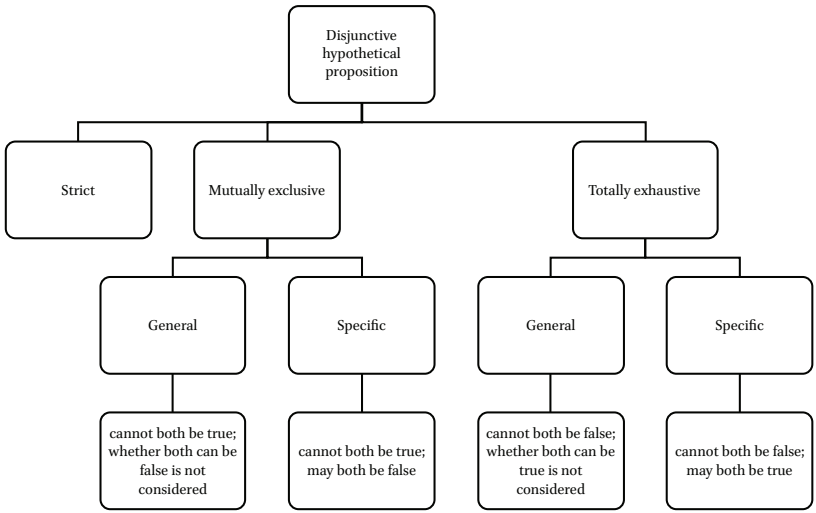
8. Qūl Aḥmad, *Ḥāshiyat Qūl Aḥmad*, 334n.3.

Types of Disjunctive Propositions

Division of disjunctive propositions

Propositions have thus far been divided into categorical and hypothetical. After a division of categorical and hypothetical according to their being singular, quantified, or unquantified, al-Fanārī and al-Abharī then categorized the conditional hypothetical proposition into entailing and coincidental. Now, al-Fanārī will follow al-Abharī and expand the explanation of the division of the disjunctive hypothetical proposition into three types:

- strict (*ḥaqīqiyya*), such as "A given number is either even or odd"
- mutually exclusive (*māniʿat al-jamʿ faqaṭ*), such as "This thing is either a stone or a tree"
- totally exhaustive (*māniʿat al-khulū faqaṭ*), such as "Zayd is either in the sea or he is not drowning"


Disjunctive hypothetical proposition
Strict
Mutually exclusive
Totally exhaustive
General
Specific
General
Specific
cannot both be true; whether both can be false is not considered
cannot both be true; may both be false
cannot both be false; whether both can be true is not considered
cannot both be false; may both be true

General and specific mutually exclusive and totally exhaustive disjunctive propositions

An important sidenote found in commentaries on al-Fanārī is that the second and third categories of mutually exclusive and totally exhaustive can be further subdivided into general and specific instances.

Take the example of the mutually exclusive disjunctive proposition "This thing is either a tree or a stone." The general mutually exclusive disjunctive

hypothetical would be that the one judging the statement affirms that this thing could not be both a tree and a stone simultaneously but does not consider whether or not it could be neither a tree nor a stone, such as a human. That is, the one positing a general mutually exclusive proposition declares that the antecedent and consequent could not both be true but does not consider whether the antecedent and consequent could both be false. The specific mutually exclusive disjunctive hypothetical proposition would be that the one judging the proposition would affirm that this thing could not be both a stone and a tree and would also actively declare that it could indeed be neither a stone nor a tree. In other words, the judge would explicitly consider that the thing under consideration could be a human or some other non-stone or non-tree. The antecedent and consequent could not be both be true, but they could both be false.

As for the totally exhaustive disjunctive hypothetical, as in the example "Zayd is either in the sea or he is not drowning," the general totally exhaustive disjunctive hypothetical would be that the judge would affirm that both the antecedent and the consequent could be true simultaneously (i.e., Zayd was both in the sea and not drowning, as when he is swimming), but the judge would not consider whether or not both could be false (i.e., that Zayd is not in the sea but he is drowning, keeping in mind that "sea" here means any body of water in which one could be submersed, whether a pond, a pool, or otherwise). The one proposing the general totally exhaustive disjunctive hypothetical proposition actively affirms that both A or B could be true but does not consider whether they could both be false. The specific totally exhaustive disjunctive hypothetical would be that the judge affirmed that both might be true and that both could not be false (i.e., Zayd is not in the sea—that is, he is on land—and yet he is drowning).

The general mutually exclusive disjunctive hypothetical is more general than both the specific mutually exclusive and the strict disjunctive

A further detail emerges from identifying general and specific instances of mutually exclusive and totally exhaustive disjunctive hypotheticals, namely, their relationship to the strict disjunctive hypothetical. Just as the term 'animal' is more general (*aʿamm*) than 'human' in that all humans are animals (of the rational variety) but not all animals are humans, likewise, the general mutually exclusive disjunctive hypothetical is more general than both the specific mutually exclusive and the strict disjunctive.

The reasoning is that all three propositions—general mutually exclusive, specific mutually exclusive, and strict disjunctive—all share the characteristic of the impossibility of the affirmation of both the antecedent and consequent. However, the specific mutually exclusive also includes the consideration of the possible negation of both the antecedent and consequent (i.e., that a thing is a human and neither a stone nor a tree), and the strict disjunctive also includes the consideration of the impossibility of negation of both the antecedent and consequent (that a number is neither even or odd). The general mutually exclusive disjunctive has the absolute or unconditioned quality of the impossibility of union of antecedent and consequent (*māniʿat al-jamʿ lā bi-sharṭ shay'*), without consideration of the possibility or impossibility of non-inclusion of the antecedent and consequent. The specific mutually exclusive disjunctive has the quality of the impossibility of union of antecedent and consequent with the condition of the possibility of non-inclusion of antecedent and consequent (*māniʿat al-jamʿ bi-sharṭ shay'*). The strict disjunctive has the quality of the impossibility of union of antecedent and consequent with the negative condition of the impossibility of non-inclusion of the antecedent and consequent (*māniʿat al-jamʿ bi-sharṭ lā shay'*). Based on the aforementioned, the general mutually exclusive disjunctive is more general because it only has the quality of the impossibility of union of antecedent and consequent without any additional conditions, whereas the specific mutually exclusive and the strict disjunctive both share in the quality of the impossibility of union of antecedent and consequent with additional conditions that differentiate them from each other (i.e., the possibility of non-union and the impossibility of non-union respectively).

The general mutually exclusive disjunctive	the impossibility of the affirmation of its two parts (that a thing is both stone and tree) no consideration of the possibility or impossibility of negation of both parts	*māniʿat al-jamʿ lā bi-sharṭ shay'* (mutual exclusion without condition)

The specific mutually exclusive	the impossibility of affirmation of its two parts (that a thing is both a stone and a tree) the possibility of negation of both parts (that a thing is a human and neither a stone nor a tree)	*māniʿat al-jamʿ bi-sharṭ shayʾ* (mutual exclusion with affirmative condition, i.e., the possibility of the negation of both parts)
The strict disjunctive	the impossibility of affirmation of its two parts (that a number is both even and odd) the impossibility of negation of both parts (that a number is neither even or odd)	*māniʿat al-jamʿ bi-sharṭ lā shayʾ* (mutual exclusion with negative condition, i.e., the impossibility of the negation of both parts)

The general totally exhaustive disjunctive hypothetical is more general than both the specific totally exhaustive and the strict disjunctive

By the same reasoning, the general totally exhaustive disjunctive is more general than the specific totally exhaustive disjunctive and the strict disjunctive. The general totally exhaustive has the absolute or unconditioned quality of the impossibility of non-inclusion of the antecedent and consequent without consideration of the possibility or impossibility of the union of the antecedent and consequent. The specific totally exhaustive disjunctive has the quality of the impossibility of non-inclusion of the antecedent and consequent with the condition of the possibility of the union of the antecedent and consequent. The strict disjunctive has the quality of the impossibility of non-inclusion of the antecedent and consequent with negative condition of the impossibility of the union of the antecedent and consequent.

Based on the aforementioned, the general totally exhaustive disjunctive is more general, as it only has the quality of the impossibility of non-inclusion of the antecedent and consequent without any additional conditions, whereas the specific totally exhaustive and the strict disjunctive both share in the quality of the impossibility of non-inclusion of the antecedent and consequent with additional conditions that differentiate them from each other (i.e., the possibility of union and the impossibility of union, respectively).

The general totally exhaustive disjunctive	the impossibility of the negation of both parts (in the sea and not drowning are the two parts, their negation being that Zayd is not in the sea and drowning) no consideration of the possibility or impossibility of the affirmation of both parts	*māniʿat al-khulū lā bi-sharṭ shay'* (totally exhaustive without condition)
The specific totally exhaustive	the impossibility of negation of both parts (that he is not in the sea and drowning) the possibility of the affirmation of both parts (that he is in the sea and not drowning)	*māniʿat al-khulū bi-sharṭ shay'* (totally exhaustive with affirmative condition, i.e., the possibility of the affirmation of both parts)
The strict disjunctive	the impossibility of the negation of both parts (that a number is neither even or odd) the impossibility of affirmation of its two parts (that a number is both even and odd)	*māniʿat al-khulū bi-sharṭ lā shay'* (totally exhaustive with negative condition, i.e., the impossibility of the affirmation of both parts)

The criterion of the categorization (*wajh al-ḥaṣr*)

Returning to the tripartite division of the disjunctive proposition into strict, mutually exclusive, and totally exhaustive, al-Fanārī explains the justification for delimiting them to these three categories. The disjunctive proposition will either consist of an antecedent and consequent both of which could neither be simultaneously affirmed nor simultaneously negated—which is called strict disjunction—or it will not. If it does not, then either the disjunctive proposition will consist of an antecedent and consequent that could be

simultaneously negated but not simultaneously affirmed—which is called mutually exclusive—or it will consist of an antecedent and consequent that could be simultaneously affirmed but not simultaneously negated—which is called totally exhaustive.

Strict Disjunctive	Impossible to affirm as true both antecedent and consequent	Impossible to deny as false both antecedent and consequent	Disunion of both truth and falsity of antecedent and consequent
Mutually Exclusive	Impossible to affirm as true both antecedent and consequent	Possible to deny as false both antecedent and consequent	Disunion of only truth
Totally Exhaustive	Possible to affirm as true both antecedent and consequent	Impossible to deny as false both antecedent and consequent	Disunion of only falsity

What is considered in each case is the presence of disunion (*ʿinād*). Disunion means the preclusion of "mutual joining" (*ʿadam al-ijtimāʿ*). It is the preclusion of the mutual joining of the antecedent and the consequent in affirmation or negation. That is, the distinguishing factor in a disjunctive proposition is whether disunion occurs with regard to both affirming and negating the antecedent and consequent or with regard to either affirmation or negation of the antecedent and consequent.

Al-Fanārī explains that if the disunion precludes the joining of truth and falsehood—that is, it posits the impossibility of declaring both antecedent and consequent true or declaring both false—then it is called strict disjunction. An example of strict disunion is "A given number is either even or odd." Evenness and oddness cannot simultaneously both be true of a given number, nor can they simultaneously both be false of a given number. One cannot say that the number *n* is both odd and even or that it is neither odd nor even. Numbers can only be odd or even, not both and not neither. Strict disjunctive hypothetical propositions are therefore both mutually exclusive and totally exhaustive simultaneously. As mentioned in the previous classification of propositions, all propositions are either affirmative or negative. The previous example regarding the evenness or oddness of a given number is an example

of an affirmative strict disjunctive hypothetical proposition. As for the negative strict disjunctive hypothetical, it removes the disunion of truth and falsehood; that is, it negates false dichotomies, showing that it is not the case that a given thing cannot be both A and B or that it cannot be neither A and B. An example is "It is absolutely not the case that either this person is a writer or a Turk," for the antecedent and consequent can be both true or false simultaneously. That is, one could be a Turkish writer (true) or an Arab architect (false).

If the disunion is with regard only to truth and not falsehood—that it is impossible for the antecedent and consequent to both be true but possible for them to both be false—then in this case it is called mutually exclusive (*māniʿat al-jamʿ faqaṭ*). The literal meaning of the Arabic term, "excluding only union," expresses that only the union of antecedent and consequent is impossible. An example of the affirmative mutually exclusive disjunctive hypothetical is "This thing is either a stone or a tree." The antecedent ('stone') and consequent ('tree') cannot both be true of 'this thing' though they might both be false in that it is a human. An example of the negative mutually exclusive disjunctive hypothetical is produced by removing the disunion with regard to truth alone, such as "It is absolutely not the case that either this thing is not a tree or not a stone." The antecedent and consequent might both be true in that a thing is both not a tree and not a stone, but they cannot both be false. If it were neither a non-tree nor a non-stone, then it would be both tree and stone simultaneously.

Finally, if the disunion is with regard only to falsehood—that it is impossible for the antecedent and consequent to both be false—then it is called totally exhaustive (*māniʿat al-khulū faqaṭ*). The literal meaning of the Arabic term, "excluding only voidance," expresses that only the voidance or negation of both antecedent and consequent is impossible. An example of an affirmative totally exhaustive disjunctive hypothetical proposition is "Zayd is either in the sea or he is not drowning." Zayd's being in the sea (which means any body of water in which one could be submersed) and his not drowning could both be true, as when he is swimming. However, his being in the sea and his not drowning could not both be false; otherwise, he would be on dry land and drowning. The negative totally exhaustive disjunctive hypothetical proposition is produced by removing the disunion with regard to falsehood alone, such as "It is absolutely not the case that Zayd is either not in the sea or he is drowning." Not being in the sea and drowning may both be false as when he is in the sea and not drowning (i.e., swimming), while not being in the sea and drowning cannot both be true; otherwise, he would be on land and drowning.

From the above discussion of mutually exclusive and totally exhaustive disjunctive propositions, a few principles can be deduced as follows:

1. For all propositional matter (*mādda*)—that is, every actual pair of disjunctive sub-propositions—where an affirmative mutually exclusive proposition is true, the negative mutually exclusive proposition is false and the negative totally exhaustive proposition is true. That is, as dictated by the propositional matter, if a disjunctive proposition is determined to be mutually exclusive, then using the same propositional matter to produce a negative mutually exclusive proposition would produce a false proposition. In other words, the two following propositions cannot both be true when using the same matter: "X and Y are mutually exclusive" and "X and Y are not mutually exclusive." However, if one takes the same propositional matter and produces a negative totally exhaustive proposition then a true proposition is produced, namely, "X and Y are not totally exhaustive." This rule can be further explained as follows:

    - Original Affirmative Mutually Exclusive Proposition: True

If the original affirmative mutually exclusive proposition is true, then the above rule applies. For example: "This thing is either stone or tree." A mutually exclusive proposition is one wherein both disjuncts (i.e., the antecedent and consequent) cannot be true of a single subject, but they could both be false. Something cannot be both stone and tree, but it could be neither. So, this proposition is true.

- Negative Mutually Exclusive: False

Given the truth of the original mutually exclusive proposition, if one constructs the following negative proposition using the same matter, it would be false: "It is not the case that this thing is either stone or tree." When this proposition is intended as a negative mutually exclusive proposition, it is as though one has said, "It is not the case that stone and tree are mutually exclusive; therefore, a thing can be both stone and tree." This is obviously false since a human is both non-stone and non-tree, and nothing can be both stone and tree.

- Negative Totally Exhaustive: True

Al-Fanārī states that the rule is that if the affirmative mutually exclusive is true, the negative mutually exclusive is false and the negative totally exhaustive is true. Given the truth of the original proposition, the following negative totally exhaustive proposition is also true: "It is not the case that this thing is either stone or tree." While this example has the exact same expression as the

false negative mutually exclusive example given above, when intended as a negative totally exhaustive proposition, it is as though one said, "It is not the case that stone and tree are totally exhaustive such that something could be both but not neither; rather, something cannot be both stone and tree but it could be neither."[9]

In summary, when the affirmative mutually exclusive proposition is true, it and the negative totally exhaustive proposition with the same matter have the same property of the impossibility of two disjuncts both being true with the possibility of both being false. The negative mutually exclusive proposition with the same matter, however, instead affirms the possibility of both being true, which is false since the affirmative mutually exclusive proposition has already been established as true.

2. Every proposition wherein the affirmation of total exhaustivity is true of its propositional matter, the negation of total exhaustivity is false, while the negation of mutual exclusion is true. Following the same logic as the previous principle, if one has affirmed that the propositional matter is totally exhaustive—meaning a thing could be both disjuncts but not neither—then if one constructs a proposition using the same propositional matter that negates total exhaustivity of that matter, then such a proposition would be false. If one were to construct a proposition from the same matter that negated mutual exclusion, then such a proposition would be true.

In other words, the two following propositions cannot both be true when using the same matter: "X and Y are totally exhaustive" and "X and Y are not totally exhaustive." However, if one takes the same propositional matter and produces a negative exclusive proposition, then a true proposition is produced, namely, "X and Y are not mutually exclusive."

- Original Affirmative Totally Exhaustive: True

If the original affirmative totally exhaustive proposition is true on account of its matter, then the above principle applies. For example: "Zayd is either in the sea or he is not drowning." This proposition is true because a totally exhaustive proposition is one wherein the two disjuncts can be true of a single subject but they cannot both be false. It is possible that Zayd is both in the sea and not drowning, but it is not possible for him to be neither in the sea nor not drowning, otherwise he would be drowning on land.

9. Maḥmūd Nashāba, *Ḥāshiyat nathr al-darārī ʿalā sharḥ al-Fanārī ʿalā matn al-Abharī fī al-manṭiq* (Cairo: Dār al-Baṣā'ir, n.d.), 115; al-ʿImādī, *Ḥāshiyat Qūl Aḥmad*, 241.

- Negative Totally Exhaustive: False

Since the original affirmative totally exhaustive proposition is true, its negation cannot be also be true. That is, the following negative totally exhaustive proposition is false: "It is not the case that Zayd is either in the sea or he is not drowning." When this proposition is intended as a negative totally exhaustive proposition, it is as though one has said, "It is not the case that being in the sea and not drowning are totally exhaustive; rather, Zayd cannot be both in the sea and not drowning." This is obviously false since Zayd could be in the sea and swimming.

- Negative Mutual Exclusion: True

Returning to the rule stated by al-Fanārī that if the affirmative totally exhaustive is true, the negative totally exhaustive is false and the negative mutual exclusion is true, given the truth of the original proposition, the following negative mutually exclusive proposition is also true: "It is not the case that Zayd is either in the sea or he is not drowning." When intended as a negative mutually exclusive proposition, despite being the same expression as the previously mentioned negative totally exhaustive proposition, it is as though one is saying, "It is not the case that being in the sea and not drowning are mutually exclusive such that Zayd could not be both in the sea and not drowning; rather, being in the sea and not drowning are totally exhaustive: Zayd could be swimming in the sea but he could not be drowning on land."

3. It is also known from the previous discussion of mutually exclusive and totally exhaustive disjunctive propositions that each pair wherein mutual exclusion is affirmed—such as blackness and whiteness—so too is total exhaustivity true of their contradictory opposites (non-blackness and non-whiteness). That is, when mutual exclusivity is true of blackness and whiteness, total exhaustivity is true of non-blackness and non-whiteness. A thing cannot be both black and white, but it can be neither black nor white, such as a red balloon (mutual exclusion). When total exhaustivity is affirmed of non-blackness and non-whiteness—the contradictory opposites of blackness and whiteness—mutual exclusivity is affirmed of blackness and whiteness. A thing cannot be neither non-black nor non-white but it can be both non-black and non-white, such as a red balloon. A white thing is non-black, a black thing is non-white, a red thing is both non-black and non-white, but nothing is neither non-black nor non-white.

4. Al-Fanārī draws the reader's attention to the invertibility of the above rule when he says "and vice versa." That is, just as affirmation of the mutual exclusivity of a pair entails affirmation of the total exhaustivity of the contradictory oppositions of that pair, so too does the total exhaustivity of a pair entail the mutual exclusivity of its contradictory opposite. Whenever total exhaustivity is affirmed of a given pair—such as being in the water and not drowning—so too is mutual exclusion true of their contradictory opposites (being on land and drowning). That is, Zayd could be in the water and not drowning, but he cannot be not in the water (i.e., on land) and drowning.

This aforementioned rule is true when there is agreement in quality and difference in type. Quality refers to affirmation or negation, and type refers to which type of disjunctive hypothetical proposition (i.e., mutually exclusive or totally exhaustive). For example: "This thing is either black or white" and "This thing is either non-black or non-white." The first statement affirms mutual exclusion and the second statement affirms total exhaustivity. Both statements agree in quality (affirmation) and differ in the type of disjunctive hypothetical proposition (mutual exclusion or totally exhaustive).

However, instead of agreement in quality and difference in the type of disjunctive hypothetical proposition, what if there is difference in quality and agreement in type? For example, mutual exclusion is negated of the statement "This thing is either non-black or non-white," while mutual exclusion is affirmed of the statement "This thing is either black or white." The type of disjunctive hypothetical proposition (mutual exclusion) is the same in each proposition, but it is negated in the first proposition and affirmed in the latter. So negation of mutual exclusion is true of the first proposition—which consists of the contradictory opposites (non-black and non-white) of the second proposition (black and white)—and affirmation of mutual exclusion is true of the second proposition, which consists of the two original things (black and white). In this case, al-Fanārī states that "the true proposition is one that negates that which is of the same type." That is, as al-Fawzī states, "The true proposition here is negation of mutual exclusion between two contradictory opposites (such as non-black and non-white) whenever affirmation of mutual exclusion between two things (such as black and white) is true."[10]

Al-Fanārī gives us two rules with regard to the relationship between one pair of antecedent and consequent and the contradictory opposites of the antecedent and consequent:

10. Al-Fawzī, *Khulāṣa*, 93.

1. Agree in quality, differ in type: The first rule is that if the original pair and their contradictory opposites agree in quality, then they will differ in type; that is, if both true propositions are affirmative, then they will be of different types (mutually exclusive or totally exhaustive).
2. Differ in quality, agree in type: The second rule is that if the original pair and their contradictory opposites differ in quality, then they will agree in type; that is, if the original true proposition is affirmative and mutually exclusive, then the true proposition consisting of its contradictory opposites will be negative and mutually exclusive.

Having presented the definition and classification of the disjunctive hypothetical proposition, al-Abharī then discusses that disjunctive hypotheticals are not limited to only two parts (i.e. odd or even, stone or tree, etc.). Rather, they can possess three or more parts. The strict disjunctive, mutually exclusive, and totally exhaustive could be in the form of "This A is either X or Y"—even if there is a logically possible third option with regard to mutually exclusive and totally exhaustive—but it can also include three or more parts, such as "This A is either X, Y, Z, or B."

Examples of tripartite strict disjunctive hypothetical propositions

Al-Fanārī gives as an example of a three-part disjunctive "Rational numbers are either abundant, deficient, or perfect." While the English technical terms for these concepts do not produce ambiguity, though they may be unfamiliar to most, their Arabic technical expressions have the lexical meaning of "Natural numbers are either greater, less, or equal," as discussed below. In either sense—the technical or lexical—there is not a fourth category of numbers, neither with regard to the sum of their divisors in the technical sense, nor with regard to the relationship between individual natural numbers in the lexical meaning.

He also gives the example of a tripartite disjunctive "A word is either a noun, verb, or particle." This, like the example with rational numbers, is a strict disjunctive hypothetical because the division that produced this classification is based on whether a word is independently comprehensible or requires another word to produce meaning. If the latter, then it is a particle. If the former, then either it is independently comprehensible and not connected to the past, present, or future time, or it is independently comprehensible and connected to one of the three aforementioned times. The word that is independently comprehensible and connected to past, present, or future time is the verb, and that which is independently comprehensible and not

connected to one of the three times is the noun. There is no fourth option.

Examples of strict disjunctive hypothetical propositions with more than three parts

Al-Fanārī gives the example of a disjunctive hypothetical proposition with more than three parts "An element is either fire, air, water, or earth." Whether this proposition would be considered a strict disjunctive which admits no fifth option or a mutually exclusive disjunctive that admits the rational possibility of more than four elements would depend on whether the classification was considered a complete inductive division, an incomplete inductive division, or a rational division. However, since al-Fanārī later gives specific examples of mutually exclusive and totally exhaustive propositions with more than two parts, it would appear the four elements were considered a comprehensive division and as such the above example was considered a strict disjunctive hypothetical proposition. As for a five-part hypothetical proposition, al-Fanārī mentions "A universal is either a species, genus, differentia, special accident, or general accident," the details of which were discussed in the first chapter.

Clarification of the numerical examples

A common error for the reader in al-Fanārī's time which likely continues to the present is to think that numerical example given by al-Abharī meant that one number is to be correlated with another. That is, al-Abharī did not intend by *zā'id* that 5 is greater than 4, or by *nāqiṣ* that 10 is less than 11, or by *musāwī* that 12 is equal to 12. Rather, "abundant" (*zā'id*, lit., "greater"), "deficient" (*nāqiṣ*, lit., "less"), and "perfect" (*musāwī*, lit. "equal") were intended in their technical sense as used in the science of arithmetic (*'ilm al-ḥisāb*) and not their lexical sense. For the reader unfamiliar with these technical terms, al-Fanārī provides the following descriptions. Every number where the sum of its nine proper divisors—1/2, 1/3, 1/4, 1/5, 1/6, 1/7, 1/8, 1/9, 1/10—exceeds that number is called abundant (*zā'id*). For example, the number twelve when divided in half is six. One third of twelve is four. One fourth of twelve is three. One sixth of twelve is two. Since twelve cannot be divided by five, seven, eight, nine, or ten, then the sum of the applicable divisors is fifteen (6+4+3+2=15). Fifteen is greater than twelve—twelve is the number whose category we are trying to determine—and therefore twelve is in the category of rational numbers called abundant. Every number where the sum of its proper divisors is less than it is called deficient (*nāqiṣ*), such as four. Half of four is two, and a fourth of four is 1. The sum of two and one is three (2+1=3). Since three is less than four, four

is from the category of deficient numbers. Every number where the sum of its proper divisors is equal to it is called perfect (*musāwī*), such as six. Half of six is three. A third of six is two. A sixth of six is one. The sum of three, two, and one is six (3+2+1=6). Therefore, six is from the category of perfect numbers in the technical terminology of arithmetic.

Totally exhaustive and mutually exclusive propositions with more than two parts

Having given examples of strict disjunctive hypothetical propositions that have more than two parts, and having clarified the technical terminology used in al-Abharī's mathematical examples, al-Fanārī then provides examples of totally exhaustive and mutually exclusive propositions whose parts are greater than two. As for the totally exhaustive disjunctive hypothetical proposition that is comprised of more than two parts, al-Fanārī gives the following example: "Either this thing is not a rock or it is not a tree or it is not an animal." That is, it could be not a rock, not a tree, and not an animal, such as a shirt, star, pan, etc. Or it could be not a rock and not a tree but in fact an animal (i.e., not *not* an animal). Or it could be not a tree and not an animal but in fact a rock (i.e., not *not* a rock). Or it could be not a rock and not an animal but in fact a tree (i.e., not *not* a tree). It could be one, two, or all three of these parts, but it could not be none of them. That is, it could not be not *not* a rock, not *not* a tree, and not *not* an animal, as that would entail that it is simultaneously a rock, tree, and animal according to the rule mentioned previously about the affirmation of total exhaustivity entailing the negation of the mutual exclusion of its contradictory opposites.

As for the mutually exclusive disjunctive hypothetical proposition that has more than two parts, al-Fanārī gives the following example: "Either this thing is a tree, or a rock, or an animal." That is, it could be neither a tree, a rock, nor an animal—such as fire—but if it is a tree, it cannot be a rock or an animal. If it were a rock, it could not be a tree or an animal. If it were an animal, it could not be a tree or a rock. It could be one or none of the three, but it could not be two or three of the parts, as they are mutually exclusive.

Objections and Responses

First objection

Al-Fanārī anticipates an objection to the discussion of disjunctive hypotheticals that are composed of more than two parts. That objection is that no disjunctive

hypothetical proposition can be composed of more than two parts because disjunction, by definition, is one single nexus (*nisba*). Perhaps what is meant by disjunction being a single nexus is that a disjunctive nexus is that wherein the antecedent (the first disjunct) is disjoined from the consequent (the second disjunct). However, if one says that there is a nexus between multiple matters, that entails that there are multiple nexuses. If there are multiple nexuses, then there are multiple disjunctions. If there are multiple disjunctions, then there are multiple disjunctive propositions, not a singular disjunctive proposition with multiple parts.

Al-Fanārī's response

Al-Fanārī responds from two angles. The first is to agree that a disjunction is a single nexus but also to maintain that what is intended by a disjunctive hypothetical's being composed of more than two parts is its being composed with regard to its apparent meaning, not with regard actual reality. That is, al-Fanārī agrees with the objector in denying that there could be three parts to a disjunction in actual reality, but he interprets al-Abharī's statement as pertaining to the outward form of the proposition "Numbers are either abundant, deficient, or perfect," which is a composite of three parts. As such, the objection does no harm to al-Abharī's statement.

The second angle from which al-Fanārī responds is to suppose that al-Abharī's example should *not* be interpreted according to the apparent meaning of having more than two parts but should instead be understood as conforming to the rule that a disjunctive hypothetical, by definition, contains a single disjunction.

That is, if we do not concede that al-Abharī intended that the example "Either a number is abundant, deficient, or perfect" was only with regard to its outward form of having three parts, then were we to interpret this literally, it would mean that the strict disjunctive in this example clarifies that the number is either abundant or it is not. What is implied in 'it is not' is that if not, then it is either deficient or perfect.

Al-Fawzī explains, "It is as though it was said:

(1) A number is either abundant or not abundant.

(2) A number that is not abundant is either deficient or perfect.

Both the first proposition and the second proposition are disjunctive propositions. When the second disjunctive is born of the second part of the first disjunctive ('not abundant'), that second part of the first disjunctive is

occluded. Then the second disjunctive is set up in the place of the second part of the first disjunctive…"

In simpler terms, one could say:

1. X is either A or not A
2. Not A is either B or C
3. X is either A or [B or C]

In the third proposition, there is, in reality, only one disjunctive nexus between A and not A, but since not A is either B or C, the two propositions have been collapsed and summarized into one proposition. So long as one knows this fact, there is no problem with the outward form appearing to consist of two disjunctive nexuses. So, the proposition that al-Abharī has labeled as consisting of three parts is in fact the combination of two separate propositions, each consisting of only two parts ascribed with a single disjunctive nexus.

Second objection

The next question asks for proof for the implicit claim, from the foregoing discussion, that while a strict disjunctive hypothetical proposition cannot consist of more than two parts, the totally exhaustive and mutually exclusive can be composed as such.

Al-Fanārī's response

Al-Fanārī responds saying that the reason for this claim is that if one intends by the strict disjunctive hypothetical proposition the existence of strict disjunction (*al-infiṣāl al-ḥaqīqī*) between every pair—first and second, first and third, and second and third—then there is no way such a tripartite proposition could be true. That is because if you affirm two, there is no disjunction; rather, there is a union of opposites. If you deny two, then there is no disjunction; rather, there is the mutual absence of contradictory opposites if, as discussed below, one is claiming that true disjunctive extends to every pair.

Some explanation is necessary to unpack al-Fanārī's terse response. The bipartite strict disjunctive hypothetical proposition is one where the first disjunct (the antecedent) and the second disjunct (the consequent) can neither be both true nor both false. Only one can be true while the other false; it is both mutually exclusive and totally exhaustive. However, a tripartite strict disjunctive proposition is impossible, as all three disjuncts would need to have different truth values, yet truth and falsity are the only two possible truth values.

If we hypothetically extend this strict disjunctive property of mutual exclusivity and total exhaustivity to each pair of disjuncts in a three-part disjunctive proposition, that would mean that:

1. Three disjuncts cannot all be true; otherwise, a number could be abundant, deficient, and perfect. Mutual exclusion holds true thus far with regard to all three disjuncts in a tripartite disjunctive proposition and is not problematic.
2. Three disjuncts cannot all be false; otherwise, a number could neither abundant, deficient, nor perfect. Total exhaustivity holds true thus far with regard to all three disjuncts in a tripartite disjunctive proposition and is not problematic.
3. Two disjuncts cannot be true while the other false; otherwise, a number could be both abundant and deficient but not perfect. Mutual exclusion holds true thus far for each pair of disjuncts in a tripartite disjunctive proposition and is not problematic.
4. However, for strict disjunction to apply to a tripartite disjunctive proposition, two disjuncts should not be false while the other is true, since there would need to be total exhaustivity between each pair to qualify as a strict disjunctive. However, a number could be abundant while being neither deficient nor perfect. Total exhaustivity does not hold true for each pair of disjuncts in a tripartite disjunctive proposition. Herein lies the problem with declaring that strict disjunction can apply to a tripartite proposition, since there is not a strict disjunction between each pair.

Tripartite mutually exclusive and totally exhaustive propositions

As for the two other types of disjunctive propositions—mutually exclusive and totally exhaustive—it is possible for them to have more than two parts because it is not always impossible to affirm both parts of a totally exhaustive proposition or to negate both parts of a mutually exclusive proposition. Even if what is intended by a tripartite mutually exclusive or tripartite totally exhaustive proposition is that mutual exclusion or total exhaustivity is intended of each pair from among the three parts, nonetheless, the validity of having more than two parts is affirmed. That is, it would be valid to affirm total exhaustivity of each pair of the three parts in the following example of a tripartite totally exhaustive disjunctive hypothetical proposition: "Either this thing is a non-stone, or a non-tree, or a non-animal (i.e., at least one)." The affirmation of 'non-stone' and 'non-tree' upon negating 'non-animal' does not lead to an

impossible union of opposites. That is, if "this thing" turned out to be an animal (i.e, the negation of 'non-animal'), then it would in fact be both a non-stone and a non-tree simultaneously.

Likewise, it would be valid to affirm mutual exclusivity of each pair of the three parts in the following example of a tripartite mutually exclusive disjunctive hypothetical proposition: "Either this thing is a tree, or a stone, or an animal (i.e., not more than one)." That is, if one jointly negates 'is a tree' and 'is a stone', the mutual absence of the two parts is valid and logically possible. That is, if "this thing" turned out to be an animal (i.e., the affirmation of 'is an animal'), then it would validly be not a tree and not a stone simultaneously.

The union (*ijtimāʿ*) of non-stone and non-tree in the totally exhaustive is valid, and the mutual removal (*irtifāʿ*) of stone and tree in the mutually exclusive is also valid. This is the difference between strict disjunction, which can only be said of two disjuncts in a bipartite strict disjunctive proposition, and mutual exclusion and total exhaustivity, which can be applied to multiple pairs in a tripartite (or greater) mutually exclusive or totally exhaustive proposition, respectively.

Finally, according to al-Fanārī, the truth that is worthy of acceptance is that if the intended meaning of disjunction as it pertains to the disjunctive hypothetical proposition is a single disjunction, then that disjunctive nexus is not realized except between two parts. That is, if the disjunctive hypothetical is conceived as a single disjunction, with a single nexus between antecedent and consequent, then only the bipartite disjunctive proposition is valid, and the examples whose outward form appears to have three or more parts are actually multiple disjunctive propositions condensed into what appears to be a single proposition. If, however, the disjunctive proposition is conceived as possessing general disjunction without conditioning that it is a single disjunction or a disjunction consisting of multiple disjunctions, then such a disjunction can be realized between two or more parts in any of the three types. That is, disjunction is realized between abundant and deficient, abundant and perfect, and deficient and perfect in the aforementioned example of the strict disjunctive proposition. Likewise, it realized between 'stone' and 'tree', 'stone' and 'animal', and 'tree' and 'animal' in the aforementioned example of the mutually exclusive disjunctive proposition. It is also realized between 'non-stone' and 'non-tree', 'non-stone' and 'non-animal', and 'non-tree' and 'non-animal' in the totally exhaustive proposition.

Contradiction of Propositions

Having completed the introduction to propositions, al-Abharī moves to the subject of the rulings and properties of propositions, albeit in an abridged manner as suits the nature and purpose of the book. Writing an introductory text, al-Abharī's primary concern is to teach what is necessary to know of logic and help the reader comprehend the material through precise explanations. As for what goes beyond the necessary introductory knowledge, the student would be expected to then consult the longer works, such as al-Kātibī's *al-Shamsiyya*.

Al-Abharī begins the section by addressing the subject of contradiction. Contradiction is one type of opposition commonly discussed in western logic texts. In addition to contradictory propositions, there are contrary, subcontrary, subalternate, and subimplicant propositions. Al-Abharī and al-Fanārī limit their discussion to contradiction, as it is the most complete form of opposition; when a statement and its contradiction cannot both be simultaneously true nor simultaneously false then only one must be true, unlike contrary propositions, which cannot both be true but might both be false, such as the contrary propositions "All Bostonians love beans" and "No Bostonians love beans." These two propositions cannot both be true, but they might both be false if one were to establish that some Bostonians do not love beans and some Bostonians do love beans. Subcontrary propositions can both be true but cannot both be false, as with "Some cats like cheese" and "Some cats do not like cheese." Both of these propositions can be true, but if "Some cats like cheese" is false, that means that no cats like cheese, and if "Some cats do not like cheese" is false, then that means that all cats like cheese. "No cats like cheese" and "All cats like cheese" are contrary statements, and as previously mentioned cannot both be true. Subalternate and subimplicant propositions yield even less useful information, as with "All cars are loud" and "Some cars are loud," and vice versa. Given the primacy and utility of contradiction, al-Abharī and al-Fanārī limit themselves to discussions of the contradiction and leave contrary, subcontrary, subalternate, and subimplicant propositions for future study.

Definition of contradiction

Al-Fanārī interjects a good deal of interlineal commentary throughout al-Abharī's discussion of contradiction, bringing a great deal of detail to the explanation and copious examples of concepts excluded from the definition. Contradiction (*al-tanāquḍ*) is one from among a number of rulings and

properties regarding propositions that are discussed in the chapter on propositions, along with the next section on conversion, as well as those that were omitted from this introductory treatment. The full definition and example given by al-Abharī, without al-Fanārī's comments, is as follows:

> Contradiction is the difference between two propositions in affirmation or negation such that that difference necessitates in and of itself that one of them is true and the other is false, such as "Zayd is a writer" and "Zayd is not a writer."

Excluded by "propositions"

Al-Fanārī assiduously identifies those concepts excluded by the various carefully chosen terms of the definiens, beginning with "Contradiction is the difference (*ikhtilāf*) between two propositions." The inclusion of "propositions" excludes the difference between two simple terms such as 'Zayd' and 'Amr' as well as the difference between a simple term and a proposition such as 'Bakr' and "Khalid is standing."

Excluded by "in affirmation or negation"

The inclusion of "in affirmation or negation" excludes the difference between propositions wherein one is categorical and another hypothetical. Likewise, it excludes a kind of difference between propositions wherein one is privative (*maʿdūla*) and the other is non-privative (*muḥaṣṣala*). That is, contradiction as a technical term does not apply when a term differs by being privative in one proposition and non-privative in the other, such as the difference between "The blind person is sitting" and "The non-seeing person is sitting." The first proposition is non-privative (*muḥaṣṣala*) in that it lacks a negative particle, and the second proposition is a privative (*maʿdūla*) proposition since it includes a negative particle (i.e., non-). A privative term is a single term which contains a negative particle (or privative prefix), such as 'non-writer'. If the negative particle is part of either the subject or the predicate, the proposition is called a privative proposition (*qaḍiyya maʿdūla*). For example, "Non-runners are good swimmers" and "Runners are non-suspicious" are both privative propositions. If the negative particle is a part of each of them, it is called a proposition of privative extremes (*maʿdūlat al-ṭarafayn*), such as "The non-living is non-knowing." If it is a part of the subject, then it is called subject-privative, such as "The non-living is inanimate (*jamād*)." If it is a part of the predicate, then

it is called predicate-privative, such as "The inanimate is non-knowing." Non-privation (*taḥṣīl*) refers to a term which does not contain a negative particle, such as 'Zayd', 'tree', 'stone', etc. They have not been modified with the addition of a negative particle. Propositions whose subjects and predicates lack any negative particle are called non-privative (*muḥaṣṣala*) propositions.[11]

In its technical usage, the term 'contradiction' applies to propositions, not singular terms. So the contradictory opposite of a thing which has been predicated of a subject is the negation of predication of that thing of the subject, not the privation of that thing. That is, the contradiction of something—such as 'writer'—which has been predicated of Zayd in the statement "Zayd is a writer" is to negate that predication through its contradictory proposition "Zayd is not a writer." Contradiction, in its technical sense, is not used for a term and its privation. That is, the relationship between 'writer' and 'non-writer' is different from affirming the predication of 'writer' of Zayd and negating the predication of 'writer' of Zayd. The key here is that we are not comparing the concepts of 'writer' and 'non-writer'; we are comparing the affirmation of the ascription of 'writer' to Zayd with the negation of the ascription of 'writer' to Zayd. Affirmation and negation are attributes of the nexus (*nisba*) and not of individual terms. Furthermore, as mentioned in the definition, what is considered in contradiction is the difference between propositions—not simple concepts—with regard to affirmation and negation. However, it is not merely being claimed that contradiction applies only to propositions and not simple terms due to the choice of the coiner of the technical term and its definition. Al-Fanārī explains that contradiction does not apply to 'writer' and 'non-writer' because a thing and its privation could both be suspended (*yartafi'ān*) when neither are being affirmatively predicated of a subject. This is not to say that a thing could simultaneously be both a writer and a non-writer; rather, it is to say that when 'writer' and 'non-writer' are not predicated of any subject, there is no absurdity because they are simple and discrete concepts. Contradiction is that mutual affirmation and mutual negation are both absurd, and this can only apply to propositions since, as mentioned previously, affirmation and negation are attributes of the nexus, not the terms. The privative and non-privative cannot both be joined, as that implies predication, but they can both be suspended when not predicated of any subject. Since privatives and non-privatives lack the quality of being impossible to join and suspend, they are excluded from the members of the term 'contradiction'.[12]

11. Qarah Khalīl, *Ḥāshiyat Qūl Aḥmad*, 354.
12. Qūl Aḥmad, *Ḥāshiyat Qūl Aḥmad*, 355.

Regarding privatives and non-privatives being mutually suspended when not affirmed of a subject, it is said that there is no contradiction with regard to simple terms because when a simple term is combined with a judgment, it ceases to be a simple term and rather becomes part of a proposition. When considered without the propositional judgment—in that they are neither subject nor predicate—simple terms are neither in negation nor affirmation. In other words, if there is no nexus, there is no negation or affirmation.

Simple terms such as 'human' and 'non-human' or 'square' and 'circle' certainly have contradictory meanings, but this contradiction is not according the technical definition of 'contradiction' in the technical terminology of science of logic. Rather, one might say that the difference between the meanings of two singular terms is metaphorically called 'contradiction' with respect to the technical definition of 'contradiction' in the science of logic—as it is a movement from the original coinage used for propositions to a secondary meaning of mutually exclusive singular concepts—or that difference is lexically called 'contradiction' only when used outside the domain of the technical terminology of logic, such as in daily conversation.

In addition to the above differences excluded by the inclusion of "in affirmation or negation" in the definition, other excluded differences include propositions whose difference is in conditionality and disjunction (*al-ittiṣāl wa-l-infiṣāl*) and those whose difference is with regard to entailment and coincidence (*al-luzūm wa-l-ittifāq*), as these are not differences in affirmation and negation.[13]

Next, al-Fanārī turns to the phrase "such that that difference necessitates in itself (*li-dhātihi*) that one of them is true and the other is false." Al-Abharī excludes thereby two things wherein the disagreement in affirmation and negation does not necessitate that one is true and the other is false. The first example is when an originally false affirmative proposition is contradicted by the negation of that proposition, such as "Every animal is a human" and "No animal is a human." The difference in affirmation and negation between these two propositions is not the kind of difference that necessitates one is false and the other true. Rather, the first proposition is false due to its material content—as it is not true that every animal is human—and negating it would not make its contradictory opposite true.

The second example of a pair of propositions wherein one is affirmative and the other negative but that difference in quality does not in and of itself

13. Al-Fawzī, *Khulāṣa*, 99.

necessitate that one is true and the other false is that wherein the necessitation is not due to the difference in quality in and of itself but is rather by an intermediary means (*bi-wāsiṭatin*), such as "Zayd is a human" and "Zayd is not rational." If one affirms the first proposition, the falsity of the other is not due to the difference in quality in and of itself but is rather by means of the equivalence of the two predicates 'human' and 'rational'. Due to this equivalence between the predicate of the first proposition and the predicate of the second proposition, the affirmation of one (i.e., 'human') effectively affirms the other (i.e., 'rational'), and the negation of one of them effectively negates the other. What is meant by the difference in affirmation and negation not being that which necessitates one proposition's being true and the other false is that when the two propositions have different yet equivalent predicates, it is the additional variable of the equivalence of their predicates that necessitates that one is true and the other is false. Were it not for the equivalence in the meanings of the two different predicates, such that affirming one predicate effectively affirms the other, then two propositions with different predicates would not be candidates for contradiction, as al-Abharī will explain shortly, and, as such, the difference in affirmation and negation would not be sufficient to necessitate that if one is true the other is false.

Examples of contradiction

Finally, after much clarification and additional discussion, al-Fanārī returns to the text and narrates al-Abharī's two examples for contradictory propositions: "Zayd is a writer" and "Zayd is not a writer." Al-Fanārī points out that al-Abharī's example is an example of contradiction between two singular propositions, meaning those propositions whose subject is a specific thing—such as Zayd—rather than a quantified proposition whose subject would be all or some of a category of things. The following discussion then mentions eight conditions for the realization of contradiction in singular propositions, after which the conditions for realization of contradiction in quantified propositions are discussed.

Eight conditions for realization of contradiction

The heart of contradiction is a type of difference: a difference in affirmation and negation between two propositions that necessitates in and of itself that one proposition is true and the other is false. This specific kind of difference is not realized between two singular propositions (*al-makhṣūṣatayn*) except after the two propositions' agreement in eight unities:

1. unity of subject, as opposed to "Zayd is standing" and "ʿAmr is not standing"
2. unity of predicate, as opposed to "Zayd is standing" and "Zayd is not sitting"
3. unity of time, as opposed to "Zayd is standing," that is, at night, and "Zayd is not standing," that is, in the day
4. unity of place, as opposed to "Zayd is standing," that is, in the mosque, and "Zayd is not standing," that is, in the market
5. unity of relation, as opposed to "Zayd is a father," that is, to ʿAmr, and "Zayd is not a father," that is, to Bakr
6. unity of potentiality and actuality, as opposed to "The wine in this bottle is intoxicating," that is, potentially, due to the intoxicating elements within it, and "The wine in this bottle is not intoxicating," that is, in actuality while it is is still in the bottle and not being consumed
7. unity of whole and part, as opposed to "The African (*zanjī*) is black," that is, some of him (his skin is black), and "The African is not black," that is, all of him (his skin is black but his hair is grey)
8. unity of condition (*al-sharṭ*), as opposed to "The physical body dilates the eye," that is, on condition of the physical body's whiteness, and "The physical body does not dilate the eye," that is, on condition that it is black. Al-Abharī's example and al-Fanārī's explanation depend on an ancient Greek theory of colors wherein different colors of bodies themselves causes dilation[14]

That is, in order for contradiction to occur between two singular propositions, there must be no difference between the propositions with regard to subject, predicate, time, place, relation, potentiality and actuality, whole and part, or condition.

Differing from al-Abharī's apparent adoption of the opinion of the earlier logicians who limited the conditions of contradiction to the eight aforementioned unities, al-Fanārī instead opts for an alternate position

14. According to this theory, colors have a causal power which affects the eye, which in turn passively receives that causal power. The color white causes a dilation in the ray of sight that affects the eye, whereas black does not. See Plato, *The Timaeus of Plato*, ed. R. D. Archer-Hind (London: Macmillan and Co., 1888), 249 (Timaeus 67e). See also Alan Code, "Aristotelian Colors as Causes," in *Festschrift for Julius Moravcsik*, ed. Dagfinn Follesdall and John Woods, 235–42 (London: College Publications, 2008).

attributed to al-Fārābī. Al-Fanārī says that the sound opinion is that what is considered with regard to the realization of contradiction is the unity of the judgment-nexus (*waḥdat al-nisba al-ḥukmiyya*) such that affirmation and negation apply to one thing (e.g., Zayd's being a writer). That is, contradiction is realized when affirmation and negation apply to one thing. That to which the judgment applies is the nexus between subject and predicate. One cannot say that the nexus between 'Zayd' and 'writer' in "Zayd is a writer" and the nexus between 'Bakr' and 'writer' in "Bakr is a writer" is a single nexus. Rather, there are two nexuses, one for each separate proposition. Likewise, one cannot say that the nexus found in "Zayd is writer with a black pen" and that found in "Zayd is a writer with a blue pen" is a single nexus. Rather, they are two separate nexuses. With regard to contradiction being realized, what is considered is the single nexus between its subject and predicate which is then affirmed or negated. If one begins with the affirmation of a single nexus having occurred between its subject and predicate (e.g., Zayd is a writer) and then one negates the occurrence of that nexus between the exact same subject and predicate (e.g., Zayd is not a writer), then contradiction has been realized.

The argument is that the unity of the judgment-nexus entails these eight unities and that the non-unity of any of these eight entails the non-unity of the judgment-nexus. The judgment-nexus is sufficient to cover all possible unities and differences between two propositions such that contradiction is realized. The eight unities mentioned by al-Abharī, however, are not sufficient, because if two propositions do not agree in instrument, cause, object, and specifier, then contradiction is not realized, even if the two propositions agree in the eight necessary unities, as discussed below.[15] That is, the classification of unities that are required in order to realize contradiction between two propositions is not comprehensively limited to the eight mentioned by al-Abharī, since contradiction does not occur when suspended by means of

1. difference in instrument (*ikhtilāf al-āla*), such as "Zayd is a writer," that is, with a Wāsiṭī pen from the city of al-Wāsiṭī, and "Zayd is not a writer," that is, with a Turkish pen. When their pens are not mentioned in the propositions, the eight unities are achieved and contradiction is realized. But, in reality, "Zayd is a writer" means "Zayd is a writer with a Wāsiṭī pen," and "Zayd is not a writer" means "Zayd is not a writer with a Turkish pen." There is no contradiction, as he might only have a Wāsiṭī pen and therefore both be a writer with a Wāsiṭī pen and not be a writer with a

15. Qūl Aḥmad, *Ḥāshiyat Qūl Aḥmad*, 367.

Turkish pen. Both statements are true so long he does not write with a Turkish pen. In order to achieve true contradiction in this case, there must be a unity of instruments, as in "Zayd is a writer" (with a Wāsiṭī pen) and "Zayd is not a writer" (with a Wāsiṭī pen).

2. difference in cause, such as "The carpenter is working," that is, for the sultan, and "The carpenter is not working," that is, for someone else. Without mentioning the cause of the carpenter's working—being hired by the sultan or someone else—then the outward appearance of the propositions entails contradiction. However, when Zayd is working for the sultan, he is not working for the mayor, so both statements could be true if each differs in cause.
3. difference in object, such as "Zayd hits," that is, he hits ʿAmr, and "Zayd hits," that is, he hits Bakr. Again, when the object is not mentioned, contradiction is achieved since all eight unities are present. However, when the objects differ, the reality is that contradiction has not occurred.
4. difference in specifier, such as "I have twenty," that is, dirhams, and "I do not have twenty," that is, dinars. Without the specification of what kind of currency, the propositions appear to be contradictory, but when the currency is specified, contradiction is not realized, as one might have twenty dirhams in one's possession but not twenty dinars.

These four unities, among others, must also be present in order to realize contradiction, proving that the limiting to the eight unities mentioned by al-Abharī and the early logicians is not sufficient to realize contradiction. However, when the realization of contradiction is reduced to unity of the judgment-nexus, which entails that affirmation and negation apply to only one thing, then all eight unities, plus these additional four, along with others not mentioned here, are all realized. The judgment-nexus is a sufficient condition, whereas the eight are not. The eight unities are necessary conditions for the unity of the judgment-nexus, but they are not exhaustive of all necessary conditions and, as such, are insufficient if limited to eight.

Al-Fanārī closes this discussion saying that the amount discussed so far is sufficient to understand the contradiction of singular propositions. He then moves to a discussion of contradiction between quantified propositions.

Contradiction of quantified propositions

As for contradiction with regard to quantified propositions (*al-maḥṣūrāt*), in addition to the previously mentioned eight unities that are conditions

for the realization of contradiction, a ninth condition is added, namely, that there must be a difference in universality and particularity between the two propositions. While the singular proposition requires a unity of the eight qualities mentioned by the early logicians, along with additional properties mentioned by al-Fanārī in his defence of al-Fārābī's view, an additional condition of difference rather than unity applies to the quantified propositions. The rule, stated simply, is that the contradiction of the affirmative universal is the negative particular, and the contradiction of the negative universal is the affirmative particular. This rule is clear and immediately understood. Were it not the case that an affirmative universal—such as "All cows eat grass"—were contradicted by a negative particular—such as "Some cows do not eat grass"—then the difference in universality and particularity would not entail one being true and the other false; in that case, "All cows eat grass" and "Some cows do not eat grass" could both be true, which is an obvious absurdity.

After mentioning the eight conditions for the realization of contradiction in singular propositions, al-Abharī mentions the ninth condition of difference in universality and particularity, stating that the contradictory opposite of the affirmative universal proposition is nothing but the particular negative proposition and that the contradictory opposite of the negative universal proposition is nothing but the affirmative particular proposition. He then gives two examples. The first is "Every human is an animal" and "Some human is not an animal," wherein the affirmative universal is contradicted by the negative particular. He then gives the following example of a negative universal proposition that is contradicted by an affirmative particular proposition: "No human is an animal" and "Some human is an animal."

Objection regarding 'the unity of subject' and response

Al-Fanārī anticipates and pre-empts a potential objection where the objector notices that one of the eight unities—the unity of subject—would be negated by the difference in universality and particularity. That is, one might object from the perspective of the proposition's subject: the original proposition and its contradiction do not share the same subject because the phrase "every human" is the subject of the proposition "Every human is an animal" and the phrase "some human" is the subject of the proposition "Some human is not an animal." "Every human" and "some human" are not the same, so the stipulation that there must be a unity of subject in the original and its contradiction has not been met. This would be an objection related to the way that the proposition is expressed, regarding the subject of the proposition.

Another way to interpret this—as some commentators did—is

> …that there is no unity of subject in a universal proposition and a particular proposition because the subject in a universal proposition is all of the individual members (*jamīʿ al-afrād*). Likewise, the subject of a particular proposition is some of the individual members (*baʿḍ al-afrād*). All is not some, and therefore the condition of unity of subject is vitiated. If there is no unity of subject, there is no unity of the judgment-nexus, so affirmation and negation do not apply to one thing.

Not only is al-Abharī's view on the conditions for realization of contradiction challenged, so too is al-Fanārī and al-Fārābī's view that there must be a unity of the judgment-nexus. If there is no unity of subject, and therefore no unity of judgment-nexus, how can one claim that there is a contradiction?

An explanation of the response to this objection is as follows:

> The intended meaning of the subject to which the condition of unity of subject is applied regarding the conditions for the realization of contradiction is the subject mentioned in the proposition, not the essence or entity of the subject. That is, sometimes the term 'subject' is applied to the entity of the subject (the extension, *miṣdāq*, or instances) and the term 'predicate' is applied to the essential meaning (the intension or *mafhūm*); the subject qua extension and the predicate qua intension are the actual, real, and literal subject and predicate. Sometimes, however, the terms 'subject' and 'predicate' are applied to the signifying expressions (*al-lafẓ al-dāll*) that signify the extension or instances of the subject and the intension or essential meaning of the predicate; in this latter case, they are not the actual, real, and literal subject and predicate, but rather they are called "the subject and predicate as mentioned" (*al-mawḍūʿ wa-l-maḥmūl fī l-dhikr*), and this is what is intended in this case. That is, when al-Abharī mentions that there must be a unity of subject, it is the subject-as-mentioned without consideration of any quantifiers.[16]

In summary, when al-Abharī mentioned eight conditions that need to be met in order for contradiction to be realized and said that there must be a unity

16. The indented passaged above is an interpretive and expanded translation of the editor's note in Abū Jaʿfar al-Ẓāhirī (ed.), *Ḥāshiyat Qūl Aḥmad*, 372n.1. Another way to indicate the meaning of 'subject as mentioned' is the term "*'unwān*" which I understand to refer to the subject-term itself minus any quantifiers.

of subject, he did not mean that all instances (*miṣdāq*) of the subject and some instances of the subject were to be unified. That is, "all individual Americans" (including New Yorkers, Californians, etc.) and "some individual Americans" (such as only New Yorkers) are not the same subject, since a statement about New Yorkers may not apply to Californians. So, in such a case, the condition of unity of subject could never be met. Instead, what al-Abharī meant by a unity of subject was that the main term in the propositional subject that signifies the particular instances (*miṣdāq*), minus any quantifiers such as "every" or "some," must be the same in the original proposition and the contradictory proposition. So "All Americans are apple pie enthusiasts" is contradicted by "Some Americans are not apple pie enthusiasts" because they both share the same subject-as-mentioned, that is, the signifying term 'American', regardless of the quantifiers that precede the shared term 'Americans' and also without regard to the instances that the term 'American' signifies.

Al-Fanārī therefore says that one should not say as an objection that there is no unity of subject in these two quantified propositions, because what is intended by "subject" in this inquiry is the subject-as-mentioned (*al-mawḍūʿ fī l-dhikr*). The subject as mentioned in the first proposition, "All humans are animals," is 'humans', and the subject as mentioned in the second proposition, "Some humans are not animals," is also 'humans', and the subject-as-mentioned is unified in both propositions.

Contradiction of quantified propositions is to refute a universal claim through establishing that there is at least one instance that contradicts the universal claim. Contrariety, on the other hand, is that the affirmative universal is opposed by the negative universal. It will often take significant effort to prove the contrary of a quantified proposition because a complete inductive survey would be required, whereas finding even one instance that contradicts a universal claim effectively refutes the universal claim without requiring one to assess every instance.

Al-Abharī further explains that contradiction is not realized between quantified propositions except after their being different with regard to quantity (*kammiyya*), since two universal propositions could both be false, such as our saying "Every human is a writer" and "No human is a writer," since at least some human is not a writer and at least some human is a writer. Two particular propositions might be true, such as our saying "Some humans are writers" and "Some humans are not writers," since at least one human writes and at least one human does not. Contradiction is stronger than contrariety, as there is no way that a proposition and its contradictory opposite could both

be true or both be false, but a proposition and its contrary opposite could both be true or both be false. If one proves the contradictory opposite of his opponent's claim, then he has properly refuted his opponent, whereas, in some cases, merely proving the contrary proves nothing more than that both claims are true. Since al-Abharī's text is an introductory text, his focus is on contradiction to the exclusion of contrariety and other forms of opposition.

Before moving on to the subject of conversion, al-Fanārī informs the reader that the unquantified proposition (*al-muhmala*)—such as "Cows eat grass"—has the force of the particular proposition—such as "Some cows eat grass"—so the judgment of the former is the same as the judgment of the latter.[17] That is, in the context of contradiction, the unquantified proposition "Cows eat grass" is treated like the particular proposition "Some cows eat grass." The unquantified proposition "Cows eat grass," just like the affirmative particular proposition "Some cows eat grass," is contradicted by the negative universal proposition "No cows eat grass."

Having finished his discussion of the rules of contradiction for singular, quantified, and unquantified propositions, al-Fanārī next moves to the subject of conversion.

Conversion of Propositions (*al-ʿaks*)

Conversion is that the subject (or antecedent) of an original proposition is made the predicate (or consequent) of the converted proposition, and the predicate (or consequent) of the original proposition is made the subject (or antecedent) of the converted proposition, while negation or affirmation are retained and, in some cases, truth or falsehood are retained.

The wording of al-Abharī's definition is given below, as the specific wording invites certain objections and defences that al-Fanārī will address:

It is that the subject be made the predicate and the predicate be made the subject while the negation or affirmation remains in its state, likewise truth or falsehood in their state.

17. That is, the unquantified proposition, such as "Cars are worldly possessions," is treated like the particular proposition "Some cars are worldly possessions" in the context of the chapter on contradiction. The unquantified proposition carries the same properties or judgmental relations as the particular proposition. So, the unquantified proposition "Cars are worldly possessions" is contradicted by "Some cars are not worldly possessions," just as the particular proposition "Some cars are worldly possessions" would be contradicted by "Some cars are not worldly possessions."

There are four elements to al-Abharī's definition that al-Fanārī will unpack for the reader:

1. making the subject of the original proposition the predicate of the converted proposition
2. making the predicate of the original proposition the subject of the converted proposition
3. retaining the negation or affirmation from the original proposition in the converted proposition
4. retaining—in some cases discussed below—the truth or falsehood of the original proposition in the converted proposition

Before discussing these four elements of conversion, a point of morphology is discussed in order to address the multiple possible readings of al-Abharī's definition. The term "conversion" (*ʿaks*) is used for both the act of converting—that is, making the subject the predicate and the predicate the subject—and the result of that process of conversion, namely, the converted proposition, or the converse. The transitive act of conversion (*ʿaks*) produces a conversion (*ʿaks*); henceforth, the result of the process of conversion will be called a *converse* rather than a conversion.

The verb "to make [something] become [something]" (*yuṣayyaru*) as found in the definiens ("It is that the subject be made the predicate…") is in the causative form marked by a *shadda* rather than the first form verb "to become" (*yaṣīru*). In discussing the morphological structure of the verb *yuṣayyaru*, al-Fanārī informs the reader that there is not a third meaning of conversion wherein the subject becomes the predicate and predicate becomes the subject. While seemingly tangential, one might imagine that students frequently mispronounced this term in the absence of vowelized texts, and their teachers felt compelled to explain that no logicians had advanced the meaning of "becoming" for the term "conversion" (*ʿaks*); rather, it was only understood as a causative act or the result of that act.

Al-Fanārī tells us that al-Abharī intended the causative form or "Form II" of the verb, a fact indicated by the *shadda* on the *yāʾ,* and furthermore that in using this verb to define conversion, we understand therefrom that he is defining the act of conversion—as a verbal noun (*maṣdar*)—not the converted proposition itself.

Conversion, then, first begins with the act of making the subject the predicate. This act, however, pertains to the conversion of the categorical

proposition. With regard to conversion of hypothetical proposition, the first step in conversion would be that the antecedent of the original proposition is made the consequent of the converse. For example, the subject of the proposition "Some animal is human" will become the predicate of its converse "…is an animal."

The second step in the conversion of a categorical proposition is to make the predicate of the first proposition the subject of the converse, while the second step in the conversion of a hypothetical proposition is to make the consequent of the original proposition the antecedent of the converse. For example, the predicate of the proposition "Some animal is a human" will become the subject of its converse "…human is an animal."

The third aspect of conversion is to ensure that the quality of the proposition and the quality of its converse are the same. That is, if the first proposition was affirmative—as in "All humans are rational"—then the converse must also be affirmative, as in "All rational (beings) are human." This is because the proposition "Every human is rational" does not entail negation at all; it entails neither a negative universal, as in "No rational (being) is human," nor a negative particular, such as "Some rational (being) is not human." Likewise, the proposition "No human is a stone" does not entail affirmation at all, neither universally, as in "All stones are human," nor particularly, as in "Some stones are human."

The fourth aspect of conversion discussed by al-Fanārī regards whether or not truth or falsehood is retained upon converting the two extremes of a proposition. Al-Abharī's definition of conversion includes the phrase "…likewise truth or falsehood (remains) in its state." Taken on its apparent meaning, al-Abharī's definition of conversion would appear to indicate that every converted proposition maintains the truth or falsehood of the original. However, when the original proposition is a particular negative categorical proposition, its converse might be true or it might be false. For example, "Some student is not an artist" is converted to "Some artist is not a student." Both the original and the conversion are true. As for an example where the truth value of a proposition is not retained through conversion, "Some animal is not human" is true, but its converse "Some human is not an animal" is false. The issue of retention of truth or falsehood, then, needs some explanation to rescue al-Abharī's definition from critique.

Before discussing al-Fanārī's effort to defend al-Abharī's definition, a few additional issues with the definition are worth noting. Absent from al-Abharī's

definition is discussion of whether universality or particularity is retained in some or all conversions. Al-Abharī clarifies this issue a few lines later when he gives examples of affirmative universal propositions being converted into affirmative particular propositions. However, the definition should stand on its own, prior to a discussion of examples and related rulings. Also absent from al-Abharī's definition is the discussion of the inversion of intension and extension when the subject and predicate are converted. Before conversion, the subject of a proposition signifies the instances or extension to which the subject-term applies, while the predicate signifies the essential meaning or intension of the predicate-term. When the subject is made the predicate and the predicate is made the subject, that which signified the extension in the original proposition now signifies the intension and vice versa. For example: "All humans (each instance of 'human') are animals (living bodies that breathe, move willfully, etc.)" is converted to "Some animals (some instances of 'animal') are human (rational animal)." This problem was discussed previously in the section on contradiction and is resolved without further explanation by al-Fanārī's insertion of "as mentioned" after al-Abharī's first use of "subject" in the definition:

> That is, (the subject)—as mentioned (*fī l-dhikr*)—...is made (the predicate)...

These previously mentioned issues, along with the ambiguity surrounding the retention of truth and falsehood, as well as the mention of subject and predicate to the exclusion of antecedent and consequent, entail that the definition has a number of apparent deficiencies. These apparent deficiencies resulted in objections, to which al-Fanārī responded with apologetic interpretations in an effort to rescue al-Abharī's definition from critique. In particular, he focused on the issue of the retention of truth and falsehood, while addressing some of the other issues by means of brief interjection or further explanation in the commentary.

Two apologetic interpretations

Due to the incorrect implications of al-Abharī's expression "...likewise truth or falsehood in its state," al-Fanārī gives two possible interpretations in order to rescue al-Abharī's definition from the accusation of being the result of forgetfulness.

The first apologetic interpretation is that when al-Abharī said "…likewise truth or falsehood in its state," he intended the following:

A. Truth: if the original proposition is true, its converse will also be true.

B. Falsehood: If the converse of an entailing hypothetical conditional is false, then the original was false as is the nature of entailment (*luzūm*).

C. He did not mean that if the original proposition was false then the converse will be false, as some have mistakenly understood.

There are four possible claims with regard to retaining truth or falsehood in conversion that help the reader understand al-Fanārī's interpretation:

1. Claim: If the original is known to be true, its converse will be true.

   This claim holds true and is taken as a principle of conversion. The principle can be stated thus: the truth of the original entails the truth of the converse, after adjusting for the rules related to universality and particularity (which is to be discussed later in the text).

2. Claim: If original is known to be false, its converse will be false.

   This does not hold true in all cases and cannot not be taken as a principle. Instead, the correct principle is that the falsity of the original does not entail the falsity of the converse.

   If the original proposition is false, its converse might be true. For example, if the original proposition were a false proposition such as "Some human is not an animal," in this case, its converse—"Some animal is not a human"—is true. Alternatively, if the original proposition is false, its converse might be false. For example, the false proposition "Some animals are stones" is converted to another false proposition, "Some stones are animals."

3. Claim: If the converse is true, the original is true.

   This does *not* hold true in all cases and cannot not be taken as a principle. Instead, the principle is that the truth of the converse does not entail the truth of the original.

   One might begin by assessing the truth value of the converse rather than the original. This might be the case if one is using conversion to assess the truth value of a given proposition which is not yet known. If the original proposition's veracity or falsity is unknown

but its conversion is known to be true, then the original might be true or it might be false depending on content and context. In other words, if the first proposition's truth is unknown, but the converse is known to be true, that does not entail that the first proposition is true. For example, if the original is "Some human is not an animal," its converse is "Some animal is not a human." By way of further example, if the false original proposition is "Every animal is a bear," its true converse is "Some bear is an animal." That the conversion is true does not entail that the original is true; while it is true that some animal is not a human, it is false that some human is not an animal. Likewise, it is true that some bear is an animal, but it is false that every animal is a bear. Even if the original turns out to be true, the truth of original is not entailed by the truth of the converse, even if both are true. For example, if the original is the true proposition "Some animal is not a stone" and the converse is the true proposition "Some stone is not an animal," nonetheless, the truth of the converse does not entail the truth of the original.

4. Claim: If the converse is false, the original is false.

   This claim holds true, but only if the proposition is an entailing conditional hypothetical. The principle can be stated as: the falsity of the converse of an entailing conditional hypothetical entails the falsity of the original.

   If, again, one begins assessing the truth value of the converse in order to determine the truth value of the original, then this principle will be a useful towards that end. If the truth value of original is unknown but the converse is known to be false, then the original will be false, as that is the nature of entailing conditionals. If, for example, the converse was the false proposition "If night has come then the sun has risen," then the original proposition would also be false: "If the sun has risen then night has come." If the entailment has been negated between the antecedent and consequent, then inverting the two extremes of the proposition does not change the negation of their entailment. In other words, if there is no entailment relationship between A and B, inverting their order through conversion does not change the fact that there is no entailment between them. "If (A) the sun has risen then (B) night has come" is false, as is "If (B) night has come then the (A) sun has risen."

While the claim above always holds true for entailing conditionals, it does not hold true for all other kinds of propositions. For example, with regard to categorical propositions, a false proposition may be the converse of a true original proposition—as in "All humans are animals" (true) and "All animals are human" (false)—just as it may be the converse of a false original proposition—as in "Some stones are animals" (false) and "Some animals are stones" (false).[18]

Returning to al-Fanārī's first interpretation of "…likewise truth or falsehood in its state," he argues that by "truth" al-Abharī meant the principle "The truth of the original entails the truth of the converse, after adjusting for the rules related to universality and particularity" (number one above), and that by "falsehood" he meant the principle "The falsity of the converse of an entailing conditional hypothetical entails the falsity of the original" (number four above). Al-Abharī did not mean by "falsehood" the incorrect claim "If the original is known to be false, its converse will be false" (number two above), as others had mistakenly understood, nor did he intend that "the falsity of the converse entails the falsity of the original" in categorical propositions. Neither al-Fanārī nor al-Abharī refer to claim number three as mentioned above, probably because the refutation of the second claim is sufficient.

After providing the first possible interpretation of "…likewise truth or falsehood in its state," which requires the reader to assume that al-Abharī meant the above-mentioned specific meanings while using a general statement, al-Fanārī moves to another possible interpretation that salvages al-Abharī's definition of conversion.

The second apologetic interpretation that al-Fanārī offers is that the meaning of truth and falsehood remaining in the state that they had in the original proposition is that there is a combined category entitled "truth and falsehood" which remains in the converse, but only one part of the meanings found in the whole title is intended in the definition. That is, what is intended by the expression "truth and falsehood" qua title of a combined category is only *truth* remaining, not falsehood. It is not that truth will always remain and falsehood will always remain in the converse, since there are some false propositions whose converse will be true and other false propositions whose converse will be false. What is intended is the use of a whole (i.e., "truth and falsehood") but intending a part (i.e., "truth"). This would be like using the term 'house' to signify the meaning of 'roof' or 'four walls' instead of its full meaning of 'four walls and a roof'.

18. Qūl Aḥmad, *Ḥāshiyat Qūl Aḥmad,* 378.

These two possible interpretations are suggested in order to make the phrase "…likewise truth or falsehood in its state…" carry the more specific meaning of either "truth remains in the conversion of affirmative propositions and falsehood remains in the original entailing hypothetical conditional when the converse is false" or only "truth remains in the conversion of affirmative propositions." Without these expansive and generous interpretations, al-Abharī's definition may have fallen short.

Rules of Conversion with Regard to Quantified Propositions (Universality and Particularity)

Having discussed the essential meaning (*mafhūm*) of conversion, al-Fanārī turns to the explanation of some rules related to conversion with regard to universality and particularity. There are four quantified propositions whose subjects and predicates (or antecedents and consequents) may be inverted, but that inversion will not always result in a proper converse. That is, the subject may be made the predicate in the new inverted proposition, but the condition of maintaining truth or falsity will not always be observed even if the condition of maintaining affirmation or negation remains. The four types of quantified propositions are the affirmative universal, the affirmative particular, the negative universal, and the particular negative.

Affirmative universal converts to affirmative particular

The affirmative universal proposition is not converted as a universal, since the predicate of the original might be more general than the subject such that when the predicate becomes the subject and the subject becomes the predicate, a false proposition will obtain. This is so because the more specific cannot be applied to all of the more general particulars. For example, if the true proposition "Every human is an animal" were converted as a universal, the following false proposition would obtain "All animals are human." Instead, the affirmative universal is converted particularly in order to maintain the truth of the original. The affirmative universal proposition "Every human is an animal" is converted to "Some animal is human."

The true affirmative universal is converted particularly and not universally and will always result in true propositions because there must be an overlap or mutual connection (*mulāqāh*) between the subject-term and predicate-term in order for the original affirmative proposition to be true, whether that

proposition is universal or particular. Overlap means that the subject-term and predicate-term both apply affirmatively to an instance of the subject of the original proposition. In fact, in a true affirmative universal proposition, both the subject-term and predicate-term apply to *every* instance of the original proposition's subject. That is, a single entity, such as a particular individual human named Zayd, is described both as a human and an animal. When a subject and predicate are affirmed universally, they apply to each and every instance. When the original affirmative universal proposition is converted, the mutual connection between the original subject-term and predicate-term remains, even if the new converse's subject-term is now broader than its new predicate-term. 'Animal' and 'human' still apply to at least Zayd, even if 'animal' applies to humans other than Zayd and non-human animals as well.

By means of the mutual overlap and application of the subject-term and predicate-term to a single entity (i.e., Zayd), the subject and predicate of both the original affirmative proposition and its converse produce a true proposition when applied particularly.[19] That is, whether from the perspective of the original subject-term as subject and original predicate-term as predicate, or the converse's subject-term as subject and the converse's predicate-term as predicate, the affirmative particular proposition in both the original proposition and the converse is true regardless of whether 'human' is predicated of 'animal' or 'animal' is predicated of 'human'. That is, when one says, "Every human is an animal," the mutual connection between 'human' and 'animal' makes the following particular proposition true: "Some animal is a human." That is because, if we say that every human is an animal and we find there is at least one specific individual—such as Zayd—who is attributed with 'human' and 'animal', then it necessarily follows that at least some animal (i.e., Zayd) is human.

Affirmative particular converts to affirmative particular

The affirmative particular, like the affirmative universal, is also converted particularly, as follows from this same line of argument. That is, if we say, "Some human is an animal," and we find there is one specific individual—such as Zayd—who is attributed with 'human' and 'animal', then it necessarily follows that "Some animal (i.e., Zayd) is human."

19. By means of the mutual application of the terms of the subject and predicate to a single entity, the subject and predicate of both the original and conversion are affirmative and true.

Negative universal converts to negative universal

The negative universal proposition is converted as a negative universal proposition, a fact that al-Abharī declares clear and obvious in and of itself. Al-Fanārī, however, adds to it by way of explanation that if it is true that the predicate of a given proposition is negated from every individual instance of the subject, then it is true that the subject is negated from every instance of the predicate. For example, if it is true that blackness is negated of every white thing—such as snow, cheese, or gypsum—as when one says, "No white thing is black," then it is true that whiteness is negated of every black thing—such as onyx, black olives, and charcoal.

This is because if the subject were established for a particular instance of the predicate then a mutual overlap (*mulāqāh*) between the subject and predicate regarding that particular instance of the predicate would be obtained. However, al-Fanārī already stated that mutual overlap of the subject-term and predicate-term in at least one instance validates the affirmative particular from either the perspective of the original proposition's subject and predicate or the converse's subject and predicate. When the affirmative particular is true of both the original proposition and its converse, the negative universal comprising the same two terms would be false no matter if arranged according to the original or its converse. That is, if "Some of the white things are black" or "Some of the black things are white" were true, either would contradict and make false the negative universal proposition "No white thing is black" and its converse "No black thing is white."

Returning to al-Abharī, we read that if our saying that "No human is a stone" is true then it is true that "No stone is a human." One proof for this is that if the original universal negative proposition were true but the converse "No stone is human" were false, then "Some stone is human" and "Some human is stone" would be true.[20] That is because, according to the rules of contradiction discussed previously, the contradictory opposite (*naqīḍ*) of a negative universal proposition is an affirmative particular. So, in this example where the converse of a true proposition is hypothesized to be false, that false converse which is the universal negative proposition "No stone is human" would then be contradicted by "Some stone is human" since the contradiction of a false statement is true. The proposition "Some stone is human" is then converted to "Some human is stone." But these two affirmative particular propositions that are the result of calling the universal negative converse false are absurd and

20. Al-Fawzī, *Khulāṣa*, 111.

contradict the original true proposition "No human is stone."[21] This completes al-Fanārī's first proof that a universal negative proposition is converted to a universal negative proposition while retaining its truth value.

A second proof that al-Fanārī offers is that were one to take the proposition "Some stone is human," which is the result of contradiction of the converse, and then use it[22] as the minor premise (*ṣughrā*) in a syllogism whose major premise is "No human is a stone," the conclusion that it produces by means of the formal validity of the syllogism is "Some stone is not a stone"; this is an absurd contradiction.

The two proofs can be summarized and combined as follows, keeping in mind that only the claim "The converse of a universal negative is a universal negative" is being challenged, not the rules of contradiction nor the validity of converting an affirmative particular to an affirmative particular:

1. original: No human is stone (true)
2. converse (*hypothesized to be false*): No stone is human (false)
3. contradictory opposite: Some stone is human (true if 2 is false, but contradicts 1 which is also true, resulting in absurd contradiction)
4. converse (affirmative particular to affirmative particular): Some human is stone (true if 3 is true because the affirmative particular is validly converted to an affirmative particular, but contradicts 1 which is also true, resulting in absurd contradiction)
5. syllogism:
    a. Some stone is human (contradiction of converse and must be true since converse is hypothesized to be false)
    b. No human is stone (original proposition; true)
    c. Therefore, some stone is not a stone (produces an absurd contradiction)

Therefore, a universal negative proposition can be converted to a universal negative proposition while retaining its truth value. Were that not the case, it would entail the abovementioned absurdities.

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21. Qūl Aḥmad and al-ʿImādī, *Ḥāshiyat Qūl Aḥmad*, 343.
22. That is, we add this proposition, "Some stone is human," to our saying, "No human is stone." This leads to the following syllogism:

    Some stone is human.

    No human is stone.

    Therefore, some stone is not stone.

Negative particular does not validly convert

Al-Abharī moves to the fourth possible form of conversion, which is to convert the negative particular proposition. He states that the negative particular proposition has no necessarily entailed converse. Al-Fanārī offers as proof that if there existed a necessarily entailed converse for it, then there would be a true converse for every true original proposition, as is the case when the affirmative universal, affirmative particular, and negative particular are true. That is, if the negative particular could produce a rationally entailed converse, then for every true negative particular original proposition, there would be a true negative particular converse, but that is not the case. Al-Abharī gives the example of the true negative particular proposition "Some animal is not human" whose converse is false, namely, "Some human is not an animal."

Al-Fanārī emphasizes that al-Abharī carefully conditioned his claim by referring to necessary entailment—"The negative particular has no necessarily entailed converse"—due to the possibility that sometimes the converse of a true original proposition might be true due to the material content of the proposition, rather than rationally necessary entailment, such as the truth of the proposition "Some stone is not man" and its converse "Some man is not stone."

The difference between the two examples of original negative particular propositions given above is that in the first proposition—"Some animal is not human"—the subject is more general and is in fact the genus of the predicate, whereas in the second example—"Some stone is not man"—the subject and predicate are fully distinct. When there is partial overlap between a more general subject and a more specific predicate, then a true converse will not be obtained if the original proposition is a negative particular. However, if the subject and predicate are fully distinct, then the negative particular is validly converted to a negative particular.

Contradictory Conversion

Having covered the subject of conversion sufficiently, al-Fanārī acknowledges that al-Abharī did not treat all of the rules pertaining to propositions. In particular, al-Abharī did not mention contradictory conversion (*ʿaks naqīḍ*), despite its being included in the rules pertaining to propositions. Since the purpose of al-Abharī's text was to introduce and explain logic as developed by the later logicians (*al-muta'akhkhirūn*), to whose school he belonged, he did not

mention contradictory conversion, despite the fact that the earlier logicians (*al-mutaqaddimūn*) considered its use in producing conclusions valid while the later logicians did not.[23]

An example of contradictory conversion, also called contraposition, is to begin with an original proposition, such as "All humans are animals." Then one inverts the subject and predicate while retaining the quantity, producing "All animals are humans." Then, the subject and predicate of the inverted proposition are replaced with their privative complements, producing "All non-animals are non-humans."

Al-Abharī omitted the treatment of contradictory conversion since it is not used in the philosophical sciences nor in producing conclusions.[24] Later in the text, al-Abharī and al-Fanārī will return to the point that the producing of conclusions (*intāj*) by means of the contradictory conversion of a proposition is not called a syllogism according to the later logicians. As for producing conclusions via the use of simple conversion (*ʿaks mustawī*) and thereby preserving therein the original terms of the proposition, both the earlier and later logicians considered this valid in the production of syllogistic arguments. Regarding the categorical proposition, the subject and predicate are preserved in conversion. So too are the antecedent and consequent preserved in the conversion of the hypothetical proposition. However, in contradictory conversion, the subject and predicate (or antecedent and consequent) arguably are transformed into new terms, namely, the privative complements (i.e., 'non-animal' and 'non-human') of the original proposition's subject and predicate.

Objection to the omission of contradictory conversion

One might object to the claim that contradictory conversion was omitted due to its not being considered a means of producing conclusions according to the later logicians. The objector's argument might be the fact that scholars mention contradictory conversion in the longer commentaries and treat their rules with such great length and complexity that it is practically impossible for a student to comprehensively master the issue in any precise manner. What is implied by the potential objection narrated by al-Fanārī is that if contradictory conversion were not a valid means of producing conclusions or a useful tool in the philosophical sciences, then the scholars of logic would not have written so much detailed and involved explanation of its rules.

23. Al-Fawzī, *Khulāṣa*, 112.
24. Al-Fawzī, *Khulāṣa*, 112.

Response to the objection

Al-Fanārī responds saying that the logicians discussed it in such great detail not because it is valid to use in the production of new knowledge but rather because contradictory conversion has a useful benefit in clarifying the veracity of a proposition by means of the veracity of its contradictory conversion. However, despite the aforementioned response to the objection, al-Fanārī concedes that the Shaykh (Ibn Sīnā) often drew conclusions via contradictory conversion in his philosophical books as is well known to those who research and scrutinize his works. It would seem that the later logicians, especially those after Fakhr al-Dīn al-Rāzī, considered contradictory conversion to have a utility in demonstrating the veracity of a proposition, but they did not draw conclusions via contradictory conversion. Given this utility, the later logicians commented extensively on contradictory conversion, despite rejecting the earlier logicians' view that it was a valid means of producing conclusions.

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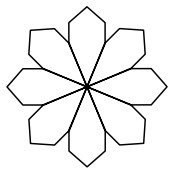
Having completed the chapter on propositions and their related rules and properties, which serve as an introductory point of departure for the following chapter on formal syllogistic reasoning, al-Abharī leads the reader to a discussion of the syllogism, whose building blocks are the categorical and hypothetical propositions discussed previously.



4

The Aims of Assents: The Syllogism

The fourth chapter treats the aims of assents, that is, the definition and classification of various forms of the syllogism (*al-qiyās*). *Al-qiyās* lexically means the determination (*taqdīr*) of something after the pattern, manner, or model of another. In the field of Islamic legal theory (*uṣūl al-fiqh*), it is the technical term for analogy, which is called *tamthīl* in the science of logic. However, in the technical nomenclature of the logicians, the term *al-qiyās* refers to the syllogistic form of arguments. Al-Abharī gives the following as the technical definition of the syllogism from the perspective of its form rather than matter:

> The syllogism is a composite saying that is composed of sayings such that when they are granted there necessarily follows from them, in and of themselves, another saying.

Al-Fanārī unpacks this definition part by part, clarifying its genus, noting the various terms that serve as exclusionary qualifications, and identifying the various differentia that distinguish the syllogism from other composite statements.

Genus: "composite saying"

The first term in the definition—"saying"—is the genus. However, "saying" is a technical term that means "composite saying" in the terminology of the logicians, so it is necessary to translate it as "composite saying," as will become clearer when the first differentia is discussed below. A composite saying, whether conceived in the mind or expressed in speech, may be a definiens—such as 'rational animal' with regard to 'human'—or a proposition, such as "This cat is meowing." However, a definiens will be excluded from the definition of the syllogism once the differentia and qualifications in the definition are discussed.

Differentia 1: "composed of sayings," 1st differentia from one perspective

Al-Abharī then adds the first differentia, "composed of sayings." That is, the syllogism is not merely a single composite saying—such as a proposition, which is composed of a subject and predicate—but instead it is a composite saying composed of multiple propositions. By qualifying the genus with this condition, al-Abharī excludes a single composite saying, such as a simple proposition (*al-qaḍiyya al-basīṭa*) that consists of a single judgment—in form and reality—which entails its converse. That is, the proposition "All fire is hot, necessarily" consists of one judgment and can be converted to "Some hot (thing) is fire, necessarily." It is a composite saying that entails a conclusion through conversion, but it is not an example of *al-qiyās* according to al-Abharī's definition. Despite focusing on the genus and the first differentia, al-Fanārī will consider how excluded concepts relate to the differentia and qualifications mentioned later in the definition. So, in this case, the simple proposition is excluded by the differentia "composed of sayings" while still meeting certain criteria of the definition mentioned below, entailment in particular. The simple proposition entails its converse and could be described as "a composite saying that there necessarily follows from it, in and of itself, another saying." It resembles the syllogism in most aspects but is excluded by failing to meet the condition of being composed of multiple composite sayings.

The simple proposition is contrasted with the composite proposition (*al-qaḍiyya al-murakkaba*), which consists of two judgments in reality, despite formally appearing as a single proposition. For example, the proposition "Every human laughs non-perpetually" consists of an affirmative and negative judgment—"Every human actually laughs (sometimes)" and "Every human actually does not laugh (sometimes)"—despite appearing as a single proposition.[1] These simple and composite propositions are treated in discussions of modal logic, which is largely absent from al-Fanārī's commentary, since al-Abharī's text was intended for beginners.

Al-Fanārī further clarifies that the use of the plural "sayings" successfully excludes the single proposition that entails its converse while still including the syllogism composed of only two propositions. The plural according to the grammarians is three or more, whereas according to the logicians it is two or more. So, al-Abharī's use of the plural form "*aqwāl*" was according to the logicians' definition of plurality and, as such, there was no need to say, "… composed of two sayings (*qawlān*) or three or more sayings (*aqwāl*)."

1. Qūl Aḥmad and al-ʿImādī, *Ḥāshiyat Qūl Aḥmad*, 388–9; al-Fawzī, *Khulāṣa*, 113.

Qualification: "such that when they are granted"

Al-Abharī then qualifies the word "sayings" with the adjectival phrase "such that when they are granted…." According to al-Fanārī, this indicates that the formal validity of the syllogism requires only that the propositions are granted as true, even if they are not true in actual reality. It follows, then, that al-Abharī's definition also includes syllogisms composed of false premises. That is, a formally valid syllogism will logically entail its conclusion, so long as the premises are granted or believed as true. Whether the statements therein correspond to and reflect reality is not necessary for the conclusion to validly follow from the premises. For example, the following syllogism is valid and logically entails its conclusion, so long as one grants the premises to be true, even for the sake of argument:

- All musical instruments make beautiful sounds.
- This donkey is a musical instrument.
- This donkey makes beautiful sounds.

Differentia 2: The condition of entailment "necessarily follows" (*lazima ʿan*), 2nd differentia from another perspective

However, merely granting the premises will not suffice in every instance. Rather, the conclusion must necessarily follow from the premises, that is to say, it must be necessarily entailed by the premises. The inclusion of the phrase "necessarily follows" in the definition excludes incomplete induction and analogy due to their producing only probabilistic rather than certain propositions. That is, the probabilistic conclusion of incomplete induction and analogy follows probabilistically. There are three forms of rational argument (*istidlāl*) discussed by the logicians: the syllogism (*al-qiyās*), the induction (*al-istiqrāʾ*), and the analogy (*al-tamthīl*). The syllogism derives the judgment from the universal and applies it to the particular. Induction derives the judgment from the particular and applies it to the universal. Analogy derives the judgment from one particular and applies it to another particular.

Complete induction according to the logicians is to establish a judgment for a universal upon finding that judgment in each of its particulars. This is achieved by means of a complete survey of all particulars. Incomplete induction is to establish a judgment for a universal upon finding that judgment in some of its particulars. This is achieved by surveying a partial sample of particulars. A complete inductive survey yields certain knowledge, but an incomplete inductive survey only yields probability.

What is considered here is not whether or not the premises of a formally valid syllogism are certain—since merely granted premises entail their conclusion when placed in syllogistic form—but rather whether or not a certain conclusion can be entailed from the premises of an argument from incomplete induction or analogy. To demonstrate this point, the form of these two modes of derivation must be explored. Induction—whether complete or incomplete—will always consist of a disjunctive hypothetical proposition and a categorical proposition.[2] The disjunctive hypothetical will be either a true disjunctive or a mutually exhaustive hypothetical proposition. For example:

Complete induction:

- Every animal is either a cow, a goat, a chicken, or [...complete list of animals with none omitted]
- Every cow, goat, chicken or [...complete list of animals with none omitted] is a body
- Every animal is a body

Complete induction is not excluded by the condition of entailment (i.e., "... necessarily follow from...") according to Qūl Aḥmad, since it produces certain conclusions from its premises.[3]

Incomplete induction:

- Every animal is either a cow, a goat, a chicken, or [...incomplete list of animals with at least alligators omitted].
- Every cow, goat, chicken or [...incomplete list of animals with at least alligators omitted] moves its lower jaw while chewing.
- Therefore, every animal moves its lower jaw while chewing.

The first syllogism is an example of complete induction for the sake of the example (despite our being unable to actually list all existent animals). It therefore entails certainty. The second is an example of incomplete induction and only yields a probabilistic conclusion, easily falsifiable upon witnessing an alligator chewing while moving its upper jaw. These are formally valid syllogisms, so it would seem that they could be counted as valid examples of syllogisms if the premises were granted as true for the sake of argument. However, while one could grant the categorical syllogism as true, it would appear that if one knew that the disjunctive hypothetical were in the form of

2. Al-ʿImādī, *Ḥāshiyat Qūl Aḥmad*, 391.
3. Qūl Aḥmad, *Ḥāshiyat Qūl Aḥmad*, 391.

a true disjunctive but based on an incomplete inductive survey, then it would be known to be probabilistic. As such, the conclusion would only be probabilistic. To avoid contradicting al-Fanārī's statement "even when granted," we would need to assume that he is not allowing for granting that an incomplete inductive survey is in fact a complete inductive survey; otherwise, "All animals move their lower jaw while chewing" would be properly entailed from the premises so long as we grant that the first proposition is complete rather than incomplete.

Likewise, the probabilistic conclusions of analogy are excluded because analogy is to establish a judgment on one particular upon discovering that judgment in another particular due to the presence of some quality shared between them. The conclusion of an argument from analogy is not entailed with certainty from its premises. For example:

- Date wine is like grape wine (with regard to its intoxicating quality).
- Grape wine is impermissible to consume (due to its intoxicating quality).
- Therefore, date wine is impermissible to consume (due to its intoxicating quality).

Since it is not known with certainty that the shared *ratio legis* is the presence of an intoxicating quality—without reference to other epistemic sources such as consensus or a mass-transmitted report from the Prophet ﷺ that admits only one interpretation—then neither the form nor the content of the analogy establishes the ruling of impermissibility with certainty. As such, an analogy (*tamthīl*) would not be called *qiyās*[4] in the nomenclature of the logicians. The aim of logic is to produce certain conclusions through sound syllogistic argument comprised of certain premises—even if granted as certain—that entail the conclusion. So the exclusion of analogy and incomplete induction from being called *qiyās* by means of the condition of entailment, thus far, appears to be due to their form, not merely their propositions being probabilistic. Qarah Khalīl adds that the other four arts—dialectical argument, rhetorical argument, poetical argument, and fallacious argument—are excluded from the definition.[5] This might appear to be due to the premises being non-certain, but, more likely it is due to the intent being

4. The jurists use the term *qiyās* for what the logicians call *tamthīl* but analogy as described above is not a form of syllogistic reasoning and as such is not *qiyās* in the nomenclature of the logicians.

5. Qarah Khalīl, *Ḥāshiyat Qūl Aḥmad*, 391.

persuasion rather than rational entailment. He does not, however, address the fact that all are nonetheless called *qiyās*. We can deduce that al-Fanārī and his commentators are herein defining *qiyās* only with regard to *qiyās al-burhān*.

As a side note, a judgment derived from analogy may also be proven via a syllogistic argument, as in the following example:

- Date wine is an intoxicant.
- All intoxicants are impermissible to consume.
- Date wine is impermissible to consume.

This syllogistic argument is a valid example of *qiyās al-burhān*—the subject matter of the fourth chapter of logic—so long as the major premise is granted as certain. However, if the major premise—"All intoxicants are impermissible to consume"—is considered probabilistic rather than certain, then it would not fall under the concern of the logicians and would not be considered a syllogism (*qiyās al-burhān*).[6]

Differentia 3: "from them," 3rd differentia from another perspective

The syllogism consists of two granted propositions from which a third proposition is entailed. The qualification of the third proposition being entailed *from* the two granted sayings excludes composites of propositions which consist of two premises that entail one or the other but not a third new proposition. For example:

- The water runs.
- The fire is hot.
- Therefore, the water runs.
  - Or, therefore, the fire is hot.

There follows from the combination of these two propositions only "Water runs" or only "Fire is hot" or only "The water runs and the fire is hot."[7] Their combination does not produce a new proposition that is not the mere restatement of one or both premises. That is, if one of them were not mentioned, the other would still be established. One does not entail or establish the other. Furthermore, no third and new proposition is entailed. The composite of both

6. Qūl Aḥmad states "If the composite of sayings were denied, however they were such that, if granted, there would necessarily follow from them in and of themselves another saying, then it would be called *syllogism*." Qūl Aḥmad, *Ḥāshiyat Qūl Aḥmad*, 391.
7. Al-Fawzī, *Khulāṣa*, 115.

sayings meets the condition of being "a composite saying that is composed of sayings such that when they are granted there necessarily follows from them" a saying, but that entailed saying is not *another* saying. Rather, it is either the first proposition or the second proposition that is entailed. The entailed proposition being previously stated and not a new statement is what distinguishes the combination of these two propositions from a combination of propositions that does produce a new proposition. What these two propositions lack are qualities that when combined together entail a new proposition, the details of which are discussed later.

Qualification: "in and of themselves"

Even when a composite of propositions meets all of the abovementioned conditions, it still does not necessarily constitute the kind of syllogism discussed herein, because the two or more entailing and granted premises must not require an external variable in order for the necessarily entailed conclusion to be produced. Rather, that entailment must occur by means of premises which in and of themselves are sufficient to produce the conclusion. Al-Abharī's inclusion of qualification "in and of itself" in the definition guards against the inclusion of the likes of the syllogism of equivalence (*qiyās al-musāwāh*), whose necessary entailment is by means of an extrinsic premise (*muqaddima gharība* or *ajnabiyya*).[8] The extrinsic premise is a proposition not found in the syllogism and whose truth is required for the necessary entailment of a conclusion from the premises. Al-Fanārī mentions two kinds of argument whose form resembles a syllogism yet which rely on an extrinsic premise for their production of a true conclusion.[9] The first is the syllogism of equivalence, whose form is

- A is equal to B.
- B is equal to C.
- Therefore, A is equal to C.

For example:

- The risible being is equal to the rational being.
- The rational being is equal to the human being.
- Therefore, the risible being is equal to the human being.

8. The Hāshimiyya edition and the *Khulāṣat al-mīzān* print say *ajnabiyya*, while the Taḥqīq al-Kitāb print says *gharība*.
9. The examples given below are drawn from al-Fawzī, *Khulāṣa*, 115–6.

The production of the conclusion is not due the premises of this syllogism in and of themselves; rather, it is due to the extrinsic premise "Every equivalent of the equivalent of a thing is the equivalent of that thing." The second kind of syllogism that requires an extrinsic premises in order to validly produce a true conclusion is the syllogism of encapsulation (*al-ẓarfiyya*), whose form is

- A is in B.
- B is in C.
- Therefore, A is in C.

For example:

- The pearl is in the box.
- The box is in the house.
- Therefore, the pearl is in the house.

The two premises of this argument do not entail the conclusion in and of themselves. Rather, they rely on the extrinsic premise "That which is within one thing that itself is within another thing is within that other thing."

It is not the form of the argument alone that entails the truth of the conclusion; rather, the truth of the conclusion is entailed by the truth of the extrinsic premise. When the extrinsic premise is false, then the conclusion is false. For example:

- Five is half of ten.
- Ten is half of twenty.
- Therefore, five is half of twenty.

The conclusion is false due the falsity of the extrinsic premise "That which is the half of one thing that is the half of another thing is the half of that other thing." This principle applies to all fractions, including quarters. For example:

- Twenty-five is a quarter of one hundred.
- One hundred is a quarter of four hundred.
- Twenty-five is a quarter of four hundred.

The same can be said of fifths, sixths, and so on.

The inclusion of the qualification "in and of themselves" in the definition of the syllogism excludes arguments that appear to be proper syllogisms whose premises logically entail their conclusions but in fact are proven true or false due to an extrinsic premise. This qualification also guards against the inclusion of the following argument which might appear to be a syllogism:

- A part of a substance is that whose removal (*irtifāʿ*) necessitates the removal of the substance.
- All that is not substance, its removal does not necessitate the removal of the substance.
- A part of the substance is a substance.

When the argument is presented as such, it appears to be syllogistic in that it has a minor premise, a major premise, and a conclusion. But while the premises do indeed lead to the conclusion, this is not due to the propositions in and of themselves but rather by means of contradictory conversion of the major premise. The original proposition of the major premise is "All that is not substance, its removal does not necessitate removal of the substance." By means of contradictory conversion it becomes "All whose removal (*irtifāʿ*) necessitates the removal of the substance is itself a substance." When this proposition is placed back in the argument, the premises entail the conclusion in and of themselves:

- A part of a substance is that whose removal (*irtifāʿ*) necessitates the removal of the substance.
- All whose removal (*irtifāʿ*) necessitates the removal of the substance is itself a substance.
- A part of the substance is a substance.

However, since the original argument required the use of contradictory conversion in order to produce a syllogism whose premises in and of themselves entailed the conclusion, then many considered this to exclude it from being considered a syllogism. As mentioned in the chapter on propositions, Ibn Sīnā used contradictory conversion to produce conclusions, and some have argued that it is valid to do so since it does not require an extrinsic premise. That is, unlike the syllogism of equivalence or the syllogism of encapsulation, the argument that requires the contradictory conversion of its major premise in order to entail the conclusion does not depend on any external material. Rather, it only requires the medium of contradictory conversion to arrange its matter in a manner that produces the conclusion.

A simplified summary of this inquiry is as follows:

Original argument whose premises in and of themselves do not entail its conclusion:

- A is B.
- All that is not C is not B.

- Therefore, A is C.

Argument with major premise attained by contradictory conversion:

- A is B.
- All B is C.
- Therefore, all A is C.

Qualification: "another saying"

The final qualification in the definition of the syllogism is that there is necessarily entailed from the previous composite sayings, in and of themselves, another composite saying which is other than one or both of the premises; it is the conclusion. The conclusion is a new proposition that is not simply a restatement of a complete premise, even if it is found as part one of the premises.

The meaning of the otherness of the conclusion is that in any syllogism—whether connective or exceptive—neither its first nor second premises can be found in their entirety in the conclusion. This does not, however, exclude the possibility of a part of one of the exceptive syllogism's premises constituting the conclusion. That is, in the case of the exceptive syllogism, the conclusion is found previously as part of the hypothetical premise:

- If the sun has risen, then *day has come*.
- But the sun has risen.
- Therefore, *day has come*.

The condition of otherness is maintained because the meaning of the conclusion's otherness is that the conclusion is not a verbatim restatement of one of the two complete premises. With that, al-Fanārī explains that it is not a condition for the validity of an argument's being called a syllogism (*qiyās*) that its conclusion does not contain a part of one of the premises.

If otherness were not stated as a stipulative condition in the definition, then syllogisms would have included superfluous conclusions such as "…Therefore, all men are mortal and Socrates is a man" in the following argument:

- Socrates is a man.
- All men are mortal.
- Therefore, Socrates is a man and all men are mortal.

The above is not a syllogism, because its circuitous reasoning leads to a redundant and superfluous conclusion which consists of full propositions

found verbatim in the premises.

Likewise, were otherness not stipulated in the definition of the syllogism, then an argument that commits the logical fallacy of begging the question would have been counted as a syllogism, such as one that concludes "Therefore, Socrates is a man," as in the following example:

- Socrates is a man.
- All men are mortal.
- Therefore, Socrates is a man.

This sort of circular reasoning is the kind of cyclicality that the sound intellect rejects as vicious, unlike the circular reasoning found in definitions of terms like 'parent' (one who has a child) and 'child' (one who has a parent), since that sort of benign circularity is not deemed absurd by the sound intellect.

Objection to the definition of 'composite proposition'

Having sufficiently parsed the definiens and discussed the scope of its inclusion of the definition's members and its exclusion of that to which the intension does not apply, al-Fanārī characteristically anticipates a potential objection, namely, that the definition is not sufficiently exclusive. The objector might state that the composite proposition[10] that entails its converse and its contradictory converse is not called a syllogism and yet al-Abharī's definition applies to it. For example, the compound proposition "Some humans are writers, non-perpetually," produces "Some writers are human, non-perpetually" through conversion, and it also produces "Some non-writers are not human, non-perpetually" through contradictory conversion.[11] It is therefore a composite saying composed of sayings such that when granted there entails from them in and of themselves another saying.

Response to the objection

Al-Fanārī responds that he and those from whom he narrates do not grant that the definition of the syllogism is applied to the composite proposition, since

10. The composite proposition, as discussed previously, is a proposition consisting of more than one judgment despite appearing as a single proposition.
11. The examples here are derived, with alteration of the subject and predicate, from Maḥmūd Nashāba's commentary. Nashāba, *Nathr al-darārī*, 148. Others may offer "Some writers are human, actually" as the converse and "Some non-writers are not human, actually" as the contradictory converse.

it is not called a composite of sayings composed of sayings; rather, it is called a singular saying composed of sayings. This is how they responded. However, commentators note that this does not actually resolve the objection, since it does not root out the ambiguity identified in the objection, unless the terms of the response and definition are generously interpreted.[12]

After defending the definition of the syllogism against its detractors—albeit unsuccessfully according to the commentors—al-Fanārī proceeds to a classification of the syllogism into the connective and the exceptive syllogism.

The Two Types of Syllogisms

The connective syllogism

There are two categories of syllogisms distinguished according to the relationship of the terms of the conclusion to the terms of the premises. The first is called the connective syllogism (*al-qiyās al-iqtirānī*),[13] and it is that wherein the neither the conclusion nor its contradictory opposite is mentioned verbatim in either of the premises. For example,

- Every body is composite.
- Every composite is originated.
- Therefore, every body is originated.

The conclusion—"Every body is originated"—is not mentioned verbatim in the premises nor is its contradictory opposite—"Every body is not originated"—rather, its terms are dispersed throughout the premises but not in the form found in the conclusion nor its contradictory opposite. That is, 'body' and 'originated' are found in the premises, and, as such, are mentioned in the premises effectively or potentially, but they are not expressed as the actual verbatim conclusion "Every body is originated" nor "Every body is not originated."

The exceptive syllogism

The second category of syllogism is the exceptive syllogism, whose conclusion—or its contradictory opposite—is mentioned verbatim in actuality in the premises. For example:

12. Al-Fawzī, *Khulāṣa*, 118; Qūl Aḥmad, *Ḥāshiyat Qūl Aḥmad*, 398.
13. This is commonly called the categorical syllogism in English logic. Other available translations include "combinatorial syllogism," "connected syllogism," and "combinative syllogism."

- If the sun has risen, then day has come.
- However, the sun has risen.
- Therefore, day has come.

The conclusion—"Day has come"—is actually mentioned in the premises in the same form as it is found in the conclusion. Or, take for example:

- If the sun has risen, then day has come.
- However, the sun has not risen.
- Therefore, day has not come.

The conclusion—"Day has not come"—is not found in the premises, but its contradictory opposite is found mentioned explicitly in the premises.

The basis of the division of the syllogism into these two categories is with regard to the inclusion of the conclusion in the premises, either effectively yet dispersed throughout or verbatim in actuality. Having presented and justified the categorization of syllogisms into connective and exceptive, al-Abharī then proceeds to further divide each of the two categories and describe their properties.

Definition, Key Terms, and Components of the Connective Syllogism (*al-qiyās al-iqtirānī*)

The connective syllogism is comprised of three and only three terms:

(a) The minor term, which is the subject of the conclusion.

Al-Fanārī calls it the subject of "the proposition one seeks to prove" (*al-maṭlūb*) rather than that of the conclusion (*al-natīja*) since the proposition found in the conclusion is called "the claim" before constructing a proof, "the proposition one seeks to prove" once one begins to construct the proof, and "the conclusion" upon proving it true. However, it is common practice in English-language logic texts to refer to the minor and major terms as the subject and predicate of the "conclusion," respectively, without regard for their relationship to the stages of claiming, demonstrating, and proving.

The subject of the proposition one seeks to prove is called the minor term because it usually has fewer members than the predicate. For example, in the conclusion "Socrates is a man," the subject is a single person, whereas the predicate is the species 'human'. Lost in translation is that what is called the minor term in English is actually called "the lesser term" in Arabic (*al-ḥadd al-aṣghar*) as compared to "the greater term." The comparative (*tafḍīl*) form

in Arabic carries the meaning that the members of the minor term, such as 'human', are less in number than the members of the greater term 'animals' in the statement "All humans are animals."

(b) The major term, which is the predicate of the conclusion.

The predicate of the proposition one seeks to prove is called the major term because it is usually greater in number in terms of the members signified by the term. The comparative form of *al-ḥadd al-akbar* carries the meaning that the members of the major term are greater in number than the minor term.

(c) The middle term, which is the term repeated in the two premises.

The term that is repeated in both premises of the syllogism is called the middle term since it is located between the two extremes—subject and predicate—of the conclusion, while the terms of the conclusion are still distributed between the two premises. An example is the term 'composite' in the previously mentioned example:

- Every body is *composite*.
- Every *composite* is originated.
- Therefore, every body is originated.

In this example, the middle term is repeated in both premises and is the predicate of the minor premise and the subject of the major premise. Being distributed across both premises such that it separates what will become the conclusion's subject from what will become its predicate prior to the entailment of the conclusion, the middle term is said to be "between" the subject of the minor premise—'body'—and the predicate of the major premise—'originated'—and due to this between-ness, it is called the middle term since it is in the middle between 'body' and 'originated'.

The premises and their figures

The syllogism consists of two premises which lead to the conclusion. The premise wherein the minor term is found is called the minor premise (*al-ṣughrā*) because the minor term is found therein. The premise wherein the major term is found is called the major premise (*al-kubrā*) because the major term is found therein. The minor premise when properly joined with the major premise formally entails the conclusion. However, there are four different configurations for how the minor, major, and middle terms are distributed across the major and minor premises, resulting in the four figures of the connective syllogism.

When the minor premise and the major premise are combined to form a syllogism, the particular configuration of the premises with regard to the positions of their terms is called a figure (*shakl*). The semantic implication of "figure" is that of a bodily form. By likening the figure to the bodily form that results from one or multiple limits (*ḥudūd*) encompassing a spatial magnitude (*al-miqdār*), the logicians thereby liken objects of rational conception (*al-maʿqūlāt*) to objects of sensation (*al-maḥsūsāt*). Just as physical bodies have sides that are encompassed by the three dimensions of length, breadth, and depth, the rational forms of the connective syllogism are comprised of combinations of the three terms. The term *ḥadd* is used to refer to the sides of a three-dimensional sensory object in one context and to the three parts of the propositions used in connective syllogisms, namely, the minor, major, and middle terms. This is an example of the use of an explicit primary metaphor (*istiʿāra muṣarraḥa aṣliyya*) in the original coinage of the technical terminology of logic, then, its usage shifting from metaphorical to literal upon establishment as a technical terms (*ḥaqīqiyya ʿurfiyya*). That is, logicians use the term "figure" as a technical term to refer to the particular composition of minor and major premises in logic, and the original metaphorical meanings are abandoned except in discussions of the etymology of technical terminology.

The Figure of the Syllogism

There are four figures of the syllogism. Al-Fanārī explains the reason that the division is limited to these four by explaining the four logical possibilities for the location of the middle term. The first possibility is that the middle term is the predicate of the minor premise and the subject of the major premise. The second is that the matter is reversed and the middle term is the subject of the minor premise and the predicate of the major premise. The third possibility is that the middle term is the subject of both the minor and major premises. The fourth possibility is that the middle term is the predicate of both the minor and major premises. Al-Abharī introduces the four figures in the above manner, ordering them as follows: first figure, fourth figure, third figure, second figure.

In the Islamicate logic tradition, the minor premise is stated first and then the major premise, unlike the Latin logic tradition, wherein the matter is reversed. For example, the common syllogism about Socrates' humanity would be stated according to the custom of the Islamicate logic tradition as follows:

- Socrates is a man.
- All men are mortal.
- Therefore, Socrates is mortal.

The useful Latin mnemonic patterns such as Barbara, Celarent, Darii, and the likes are lost in translation, except as proper names for various figures and moods.

The first figure

If the middle term is the predicate in the minor premise and the subject in the major premise, then this configuration is called the first figure (*al-shakl al-awwal*). It is called the first figure and not the second, third, or fourth, due to its conclusion being self-evidently obtained from the premises without additional contemplation. Also, its primacy is due to its conclusion being arrived at via the natural order of reasoning and according to the dictates of reason. Furthermore, al-Fanārī emphasizes that human nature is naturally disposed to the intellect's movement from a thing—such as the minor premise—to the intermediary thing—such as the middle term—whose judgment necessitates the judgment of the sought conclusion.[14] That is, when the syllogism is configured such that the minor term is mentioned first, then the middle term is predicated of it, and then the major term is predicated of the middle term, the intellect naturally concludes that the major term is predicated of the minor term.

The common Socratic example suffices for the first figure:

- Socrates is a man.
- All men are mortal.
- Therefore, Socrates is mortal.

The fourth figure

Rather than moving to second figure, al-Abharī inverts the first figure, making the middle term the subject of the minor premise and the predicate of the major premise. Al-Fanārī provides the following example:

- Every human is an animal.
- Every rational [being] is a human.
- Therefore, some animal is rational.

14. Al-Fawzī, *Khulāṣa*, 122.

The third figure

Al-Abharī then introduces the syllogism wherein the middle term is the subject of both the minor and major premises, and al-Fanārī offers the following example:

- Every human is an animal.
- Every human is rational.
- Therefore, some animal is rational.

The second figure

Finally, al-Abharī presents the syllogism wherein the middle term is the predicate of both the minor and major premises. Al-Fanārī gives a formally valid yet materially false example of the second figure as follows:

- Every human is an animal.
- No horse is an animal.
- Therefore, no human is a horse.

Al-Fanārī does not provide a justification for al-Abharī's introducing the syllogisms with the first, then the fourth, then the third, then the second. Al-Fawzī, however, explains that al-Abharī did so with the aim of abridging the explanation.

Al-Fanārī then turns to the reasoning behind the hierarchical ranking of connective syllogisms from first to fourth. In order to help the reader understand this reasoning, al-Fanārī informs the reader of some preliminary points, namely, that the nobler term of a proposition is the subject while the humbler term is the predicate. The nobler of the two premises of a syllogism is the minor premise because it contains the subject of the conclusion, which is the nobler term in the conclusion. The humbler premise is the major premise because it contains the predicate of the conclusion, which is the humbler term in the conclusion. Upon understanding the ranks of terms and premises, the reader can now understand the reasoning behind the ranking of the syllogism's figures:
First Figure: It is first because it is self-evidently conclusive. Its minor premise—the nobler premise—possesses the nobler term.

- Every *human* is an animal.
- Every animal is a physical body.
- Therefore, every *human* is a physical body.

Second Figure: It is second because it shares in common with the first figure in having the subject of the conclusion as the subject of its minor

premise. That is, both the first and second figures have the subject of the conclusion—the nobler term—in the minor premise, which is the nobler premise. Both figures share in this dual nobility.

- Every *human* is an animal.
- No horse is an animal.
- Therefore, no *human* is horse.

Third Figure: It is third because it shares with the first figure in having the predicate of the conclusion in the predicate of the major premise. With all nobility trickling down from the first figure, the third figure receives a boost in status due its having in common with the first figure the predicate of the conclusion in the major premise. While their commonality is that they both share the humbler term in the humbler premise, the mere presence of a shared essential property with the first figure advances this figure to third place.

- Every human is an animal.
- Every human is *rational*.
- Therefore, some animal is *rational*.

Fourth Figure: The fourth figure does not have anything in common with the first figure with regard to the placement of the subject or predicate of the conclusion in the premises. Therefore, it comes in last with regard to nobility since it does not have in common with the first figure its noble terms nor its noble premises.

- Every human is an animal.
- Every rational being is a human.
- Therefore, some animal is rational.

The figures with regard to productivity (*intāj*) and stipulation (*ishtirāṭ*)

Having presented the four figures mentioned in logic and distinguished between them according to quiddity and nobility, al-Abharī then turns to distinguish them from each other with regard to productivity. That is, he distinguishes them according to the kinds of propositions they produce through the entailment of the conclusion from the premises.

The first figure: The first figure produces all four possible conclusions with regard to quantity and quality:

a. affirmative universal proposition

b. negative universal proposition

c. affirmative particular proposition

d. negative particular proposition

The second figure: The second figure produces the two negative propositions but not the affirmative propositions:

a. ~~affirmative universal proposition~~

b. negative universal proposition

c. ~~affirmative particular proposition~~

d. negative particular proposition

The third figure: The third figure produces the two particular propositions but not the universal propositions:

a. ~~affirmative universal proposition~~

b. ~~negative universal proposition~~

c. affirmative particular proposition

d. negative particular proposition

The fourth figure: The fourth figure, like the third figure, also produces the two particular propositions but not the universal propositions:

a. ~~affirmative universal proposition~~

b. ~~negative universal proposition~~

c. affirmative particular proposition

d. negative particular proposition

Stipulations for productivity

Next, al-Fanārī turns to the different stipulated conditions for the productivity of each figure. There are certain conditions with regard to each proposition's quality and quantity that determine whether a syllogism configured according to one of the four figures can produce an entailed conclusion. It is not merely the location of the minor, major, and middle terms that dictates the productivity of a given argument; rather, affirmation, negation, universality, and particularity must be considered as well.

The first figure:

In order for a syllogism in the first figure to produce an entailed conclusion, the stipulation with regard to its quality is that the minor premise must be affirmative. With regard to its quantity, its major premise must be universal.

The second figure:

In order for a syllogism in the second figure to produce an entailed conclusion, the stipulation with regard to its quality is that its two premises must differ in affirmation and negation. That is, if the first premise is affirmative, the second must be negative, and vice versa. As for the stipulation with regard to quantity, the major premise must be universal.

The third figure:

The minor premise of the third figure must be affirmative, this being its stipulation with regard to quality. As for the stipulation with regard to quantity, it that one of the two premises must be universal.

The fourth figure:

There are two possibilities with regard to the stipulations for the productivity of the fourth figure. The first is that if both premises are affirmative, then the minor premise must be universal. The second is that if the premises differ in quality—one being affirmative and the other negative—then one of them must be universal.

Given the introductory nature of al-Abharī's text and al-Fanārī's advanced commentary in service of the original text, the proofs for abovementioned stipulations are not mentioned. Rather, the reader is referred, once again, to the longer commentaries.

The Figures with Regard to Deducing the Conclusions

The first figure's productivity

The first figure was described previously as being close to the natural reasoning, its conclusions flowing naturally from its premises. The fourth figure, on the other hand, is very far from natural reasoning due to its two premises being the inversion of the first figure with regard to the location of the middle term. In the fourth figure the middle term is the subject of the minor premise and the predicate of major premise, while in the first figure the middle term is the predicate of the minor premise and the subject of the major premise. If the first figure is the closest to natural reasoning, then its inverse—the fourth figure—is the furthest.

The second figure is the closest to the first figure in the configuration of its terms, so one with a sound intellect and upright nature does not need to reduce the second figure to the first figure. Rather, he is led by his upright

nature to the conclusion without needing to return it to the first. However, for those who are not blessed with such perspicacity, conversion of the major premise will convert the second to the first figure, making the reasoning clearer. For example:

- Every human is an animal.
- No stone is an animal.

One should be able to deduce therefrom that "No human is a stone." However, through conversion (*ʿaks*) of the major premise, the entailment of the conclusion is clearer:

- Every human is an animal.
- No animal is a stone.
- Therefore, no human is a stone.

With the subject of the conclusion as the subject of the minor premise and the predicate of the conclusion as the predicate in the converted major premise, the conclusion is more readily apparent.

The third and fourth figures, however, are much further from the first figure than the second figure is. Therefore, the third and fourth figures warrant reduction to the first figure in order to bring them in line with the natural order of reasoning.

The third figure is reduced to the first figure by conversion of the minor premise. For example, an original syllogism in the third figure is

- Every human is an animal.
- Every human is rational.
- Therefore, some animal is rational.

Then, the minor premise is converted to "Some animal is human." So the syllogism after reduction from the third figure to the first becomes:

- Some animal is human.
- Every human is rational.
- Therefore, some animal is rational.

The fourth figure is reduced to the first by converting the order (*ʿaks al-tartīb*) or converting both of the two premises.[15] For example, an original syllogism in the fourth figure is:

15. Al-Fawzī, *Khulāṣa*, 126. Also see Quṭb al-Dīn al-Rāzī, *Lawāmiʿ al-asrār fī sharḥ Maṭāliʿ al-anwār*, ed. Abū al-Qāsim al-Raḥmānī (Tehran: Muʾassasa-i Pazhūhashī-i Ḥikmat va-Falsafa-i Īrān, 1393 AH), 3:76–7.

- Every human is an animal. [S]
- Every rational [being] is human. [P]
- Some animal is a rational [being].

Converting the order applies to moods—discussed below—one, two, and three of the fourth figure.[16] It is to invert the order of the premises to produce a first figure syllogism, then to convert the conclusion. Unlike the reduction of figures two and three, which is accomplished in one step through conversion of the major or minor premise, respectively, the reduction of the fourth premise through converting the order is done in two steps, as explained below.

Step 1: Invert the order of premises so the minor becomes major and major becomes minor. As a result, the subject of the original syllogism's conclusion becomes the predicate of the inverted syllogism's conclusion, and the predicate of the original syllogism's conclusion becomes the subject of the inverted syllogism's conclusion.

- Every rational [being] is a human. [S]
- Every human is an animal. [P]
- Therefore, every rational [being] is an animal.

Step 2: Convert the conclusion:

- Every rational [being] is a human. [S]
- Every human is an animal. [P]
- Therefore, some animal is a rational [being].

As for reducing the fourth figure to the first through conversion of both of the premises, this is applicable to moods four and five. For example, the original syllogism in the fourth figure, mood four, is

- Every human is an animal. [S]
- No cat is a human. [P]
- Therefore, some animal is not a cat.

Then both premises are converted, producing a first figure syllogism. The minor premise is a universal affirmative proposition and is therefore converted particularly, as discussed in the section on conversion. The major premise is a universal negative proposition and is converted universally.

- Some animal is human.

16. For a full treatment of the moods of each of the four figures, see Muhammad Emīn Er, *Jāmiʿ al-mutūn al-dirāsiyya* (Damascus: Dār al-Andalus, 2011), 240–4.

- No human is cat.
- Therefore, some animal is not a cat.

This method of reduction is also done in two steps, by means of the *conversion of the two premises*; however, the alteration of the premises in this manner produces a first figure syllogism that entails the same conclusion as the original fourth figure syllogism. This is unlike the conversion of the fourth to the first via *converting the order*, which in reality produces a first figure syllogism in the first step, but that new arrangement of premises does not entail the same conclusion as the original fourth figure. Instead, the second step of converting the conclusion is necessary. However, it would seem that this is still considered reduction of the fourth figure to the first figure. After demonstrating how figures two, three, and four of the connective syllogism are reducible to the first figure, al-Fanārī then further explains that all syllogisms—including the exceptive syllogism—are ultimately reducible to the first mood of the first figure with immediate (*ḍarūrī*) premises.

All syllogisms reduce to the first mood of the first figure

The first mood of the first figure whose premises are immediate is the foundation of all arguments. Al-Fanārī notes that the four figures of the connective syllogism reduce in reality to the the first mood of first figure; moreover, they reduce to the immediate[17] (*ḍarūrī*) of the first mood of the first figure, as is known from the longer works of logic. Furthermore, it is possible to reduce the exceptive (*istithnā'ī*) syllogism to the connective (*iqtirānī*) and vice versa.

The second figure's productivity

The second figure is productive when the minor and major premises differ in affirmation and negation and the major premise is universal. This is so since if the two premises were to agree in either affirmation or negation, that would entail a disparity between the conclusion of one syllogism and that of another while they have the same form. Such a scenario necessitates that such a syllogism is non-productive. The nature of that disparity is that in one instance one can put forth a syllogism in a particular form that produces a true affirmative conclusion and then put forth another syllogism in the same form—but with different matter—that produces a false affirmative conclusion. Likewise, a syllogism with a true negative conclusion can be constructed, while a syllogism with the same configuration that leads to a false negative

17. Qarah Khalīl, *Ḥāshiyat Qūl Aḥmad*, 408.

conclusion can also be put forth.

For example, the following syllogism consists of two affirmative universal premises wherein the middle term is the predicate of both the minor and major premises:

- Every human is an animal. (affirmative)
- Every rational (being) is an animal. (affirmative)
- Therefore, every human is rational. (true)

The conclusion "Every human is rational" is true and appears to follow from the premises. However, when compared to the following syllogism which shares the same form but produces a false conclusion, it becomes clear that the conclusion is not formally entailed by the premises:

- Every human is an animal. (affirmative)
- Every horse is an animal. (affirmative)
- Therefore, every human is a horse. (false)

Regarding syllogisms that produce a true negative conclusion in one instance and a false negative conclusion in another, al-Fanārī gives the following two examples:

- No human is a stone. (negative)
- No horse is a stone. (negative)
- Therefore, no human is a horse. (true)

- No human is a stone. (negative)
- No rational being is a stone. (negative)
- Therefore, no human is a rational being. (false)

Al-Fanārī concludes that the abovementioned scenario, wherein two syllogisms of the same form produce a true affirmative conclusion in one instance and a true negative conclusion in another while also producing false affirmative and false negative conclusions in other instances, proves that the conclusion is not necessarily entailed by the essential nature of the syllogism, since it is impossible that the essential composition of the syllogistic form itself would entail conclusions that differ in truth or falsehood.

The Moods of the First Figure, Their Examples, and Their Order

The first figure is made the standard (*al-miʿyār*) for the philosophical sciences. In other words, it is like a standard measure or scale (*al-mīzān*). The term standard (*al-ʿiyār*) lexically means a measure (*al-wazn*). For this reason, al-Abharī and al-Fanārī discuss it at this point in the text in order to establish it as an official canon in the sense of being an authoritative reference (*marjiʿ*) to which one may return and with which one may suffice oneself without needing to delve into the other three figures or their moods. The other figures and moods are found in longer texts, but al-Abharī's intent was to provide a comprehensive introduction to the science, and as such, the second, third, and fourth figures and their moods are well beyond his aim.[18] Furthermore, al-Abharī and al-Fanārī treat the first figure and its moods in detail at this point since it is the only figure from which all four possible quantified conclusions are produced: universal affirmative, universal negative, particular affirmative, particular negative. The other three figures do not produce all four quantified conclusions. Rather, they only produce two conclusions each, as discussed previously.

The first figure logically produces sixteen moods obtained from combining the four possible quantified minor premises with their four possible quantified major premises. The four possible minor premises are:

- All S is P (affirmative universal)
- No S is P (negative universal)
- Some S is P (affirmative particular)
- Some S is not P (negative particular)

The four possible major premises are also:

- All S is P (affirmative universal)
- No S is P (negative universal)
- Some S is P (affirmative particular)
- Some S is not P (negative particular)

There are, therefore, sixteen possible combinations of quantified major and minor premises. Since the focus is on quantified propositions, not singular or natural propositions, the possible number is sixteen. Were all the possible singular and natural propositions considered, then there would be a total of sixty-four possible moods.[19]

18. Al-Fawzī, *Khulāṣa*, 128. For examples of the other figures and their mood, see Er, *Jāmiʿ*, 240–4.
19. Qūl Aḥmad, *al-Fawāʾid*, 117.

Of these sixteen possible moods consisting of combinations of quantified positions, only four are actually productive. As mentioned previously, the conditions for productivity are that the minor premise must be affirmative, whether universal or particular, and the major premise must be universal, whether affirmative or negative. All other combinations do not produce conclusions. When the minor premises are negative, if combined with any of the four possible major premises, none of the eight possible combinations produce conclusions. If the major premises are particular, when combined with the two affirmative minor premises, none of the four possible combinations produce conclusions. Only four valid moods remain, to which al-Abharī and al-Fanārī turn their attention.

The four possible combinations with regard to quality and quantity are as follows:

1. First Mood:
    a. Minor Premise: Affirmative Universal
    b. Major Premise: Affirmative Universal
    c. Conclusion: Affirmative Universal
2. Second Mood:
    a. Minor Premise: Affirmative Universal
    b. Major Premise: Negative Universal
    c. Conclusion: Negative Universal
3. Third Mood:
    a. Minor Premise: Affirmative Particular
    b. Major Premise: Affirmative Universal
    c. Conclusion: Affirmative Particular
4. Fourth Mood:
    a. Minor Premise: Affirmative Particular
    b. Major Premise: Negative Universal
    c. Conclusion: Negative Particular

Examples of the four moods

Regarding the first mood, the two affirmative universal premises produce an affirmative universal conclusion. For example:

- Every body is composite.

- Every composite is originated.
- Therefore, every body is originated.

Regarding the second mood, the two universal premises wherein the major premise is negative produce a negative universal conclusion. For example:

- Every body is composite.
- No composite is eternal.
- Therefore, no body is eternal.

Regarding the third mood, the two affirmative premises wherein the minor premise is particular produce an affirmative particular conclusion. For example:

- Some body is composite.
- Every composite is originated.
- Therefore, some body is originated.

Regarding the fourth mood, an affirmative particular minor premise and a negative universal major premise produce a negative particular conclusion. For example:

- Some body is composite.
- No composite is eternal.
- Therefore, some body is not eternal.

The reasoning behind al-Abharī's introducing these moods in this particular order is that he arranged them according what al-Fanārī terms the "nobility" of their conclusions. Universality is more noble than particularity, affirmation is more noble than negation, and universal quantity is more noble than affirmative quality. Based on this ordering according to nobility, al-Abharī began with the mood that produced a universal affirmative conclusion, which contains the most noble quantity, universality, and the most noble quality, affirmation. The second mood's conclusion retains the most noble quantity of universality combined with the lessor quality of negation. Since being universal is more noble than being particular, the second mood is placed before the third due to the greater nobility of its conclusion. Universality is more noble than particularity for a number of reasons, including its being comprehensive (*shāmilan*) of all individuals (*afrād*) to which it applies, and due to its being precise (*maḍbūṭan*), in that none of the individuals to which it applies are excluded.[20] Furthermore, universals are useful in the philosophical sciences,

20. Al-Fawzī, *Khulāṣa*, 130.

whereas particulars are not considered as such. Thus, the universal negative conclusion of the second mood is more noble than the particular affirmative conclusion of the third mood. Quantity precedes quality in nobility. The third mood's conclusion combines the lesser quantity of particularity with the more noble quality of affirmation. It contains a single nobility, affirmation, whereas the fourth mood possesses none. The fourth mood's conclusion combines the lesser quantity of particularity with the lesser quality of negation.

The Types of the Connective Syllogism (*al-qiyās al-iqtirānī*)

Having categorized the connective syllogism by its figures and their moods, al-Abharī then divides the connective syllogism according to the various combinations of categorical and hypothetical propositions that compose different types of connective syllogisms. Al-Fanārī explains that the connective syllogism is of five types from the perspective of the kinds of propositions of which the syllogism is constituted. Commentators note that al-Fanārī appears to list six categories but still claims it is five. It seems this is because al-Fanārī was following the convention that there are two divisions of connective syllogisms, the categorical (*ḥamliyya*) and the hypothetical (*sharṭiyya*); the categorical syllogism is of only one kind whereas the hypothetical syllogism is of five types. Al-Fanārī notes that the syllogism consisting of two categorical propositions (i.e., the categorical syllogism) has been discussed previously on a number of occasions, and then he turns his attention to the other five categories of syllogisms, consisting of at least one hypothetical proposition (i.e., the hypothetical syllogisms). It seems that although the statement is ambiguous, al-Fanārī intended that in addition to the categorical syllogism, there are five more types. This seems plausible and is justified when referring to his discussion of syllogisms in *Fuṣūl al-badā'i'*,[21] wherein he explicitly mentions that the connective hypothetical syllogism is divided into the five combinations listed below. Some commentators on his commentary on the *Īsāghūjī*, however, have suggested that al-Fanārī's stating that the connective syllogism is of five categories is an early copyist's error.[22]

Al-Fanārī says that the reason it is limited to five is that either it is composed of

21. Muḥammad al-Fanārī, *Fuṣūl al-badā'i' fī uṣūl al-sharā'i'*, ed. Muḥammad Ḥusayn Ismā'īl (Beirut: Dār al-Kutub al-'Ilmiyya, 2006), 1:68.
22. Al-'Imādī, *Ḥāshiyat Qūl Aḥmad*, 415.

- two categorical propositions, which is the categorical syllogism

1. two conditional hypothetical propositions
2. two disjunctive hypothetical propositions
3. one categorical and one conditional hypothetical
4. one categorical and one disjunctive hypothetical
5. one conditional and one disjunctive hypothetical

For each category of syllogism divided according to its particular combination of one or more hypothetical propositions, al-Abharī provides an example and al-Fanārī thereafter interjects an explanation. In doing so, al-Fanārī will refer to the syntactic components of each proposition in his terse justifications for the conclusiveness of the syllogism in question. The following are key terms:

- *Malzūm*: entailer
- *Lāzim*: entailed
- *al-ṣādiq*: true disjunct
- *al-ṣādiq ʿalā…*: true meaning applied to (another meaning)

It is helpful to be aware that one of these syntactic components in a proposition may come to take a different syntactic role after the proposition is converted; in such cases, al-Fanārī will continue to refer to it by the syntactic role it had before the conversion.

In the conditional hypothetical proposition, the antecedent is called the entailer and the consequent is called the entailed. For example, in the proposition "If the sun has risen, then day has come," the phrase that begins with "if" comprises the entailer and the phrase the begins with "then" comprises the entailed. That is, the sun's having risen is the *entailer* of the coming of day, and the coming of day is the *entailed* of the sun's having risen.

In the disjunctive hypothetical proposition, if one posits that the antecedent or first disjunct is true, then that will be called *al-ṣādiq*, or the true disjunct. If one posits that the consequent or second disjunct is true, rather than the antecedent, then that would be called the true disjunct in that case. For example, in the proposition "A number is either odd or even," if one pulls a card from a deck and sees an odd number, that number would be the true disjunct when applying the proposition to reality.

Finally, al-Fanārī will use the term *al-ṣādiq ʿalā* in the context of a conditional hypothetical proposition wherein he is referring to the truthful application of a meaning to another meaning, such as 'animal' being truthfully applicable to 'human'. Understanding these four terms first will help one understand

al-Fanārī's terse justifications more readily.

(1) Two conditional hypothetical propositions:

For the hypothetical syllogism consisting of two conditional hypothetical propositions, al-Abharī offers the following example:

- If the sun has risen, then day has come.
- Whenever day has come, the earth is illumined.
- Therefore, if the sun has risen, then the earth is illumined.

Al-Fanārī explains why *the sun's having risen* is the entailer of *the earth's being illumined*, and it is because "the entailer of the entailer is an entailer." That is, the entailer (*malzūm*) of the entailer of C is also an entailer of C. More simply, A is an entailer of B, and B is an entailer of C; therefore, A is an entailer of C. The key to unlocking this phrase is to realize that the *entailed* as found in the minor premise becomes the *entailer* in the major premise. When al-Fanārī says, "The entailer of the entailer is an entailer," he means "the entailer (A) of that which was the entailed (B) in the minor premise but then became the entailer (B) of the entailed (C) of the major premise is also an entailer (A) of the entailed (C) of the major premise."

Entailer (*malzūm*)	Entailed (*lāzim*)
Entailer 1: The sun has risen. (A)	Entailed 1: The day has come. (B)
Entailer 2: The day has come. (B)	Entailed 2: The earth is illumined. (C)
Entailer 1: The sun has risen. (A)	Entailed 2: The earth is illumined. (C)

(2) Two disjunctive hypothetical propositions:

Hypothetical syllogisms composed of two disjunctive hypothetical propositions are exemplified by the following syllogism:

- Every number is either even or odd.
- Every even number is either divisible into two even numbers (*zawj al-zawj*) or divisible into two odd numbers (*zawj al-fard*).[23]
- Therefore, every number is either odd, or divisible into two even numbers, or divisible into two odd numbers.

To test this argument, one need only choose any given number to see if it is either even or odd, as the minor premise purports. We expect that this selected number will be from one side of the disjunctive proposition found in the minor premise, either disjunct 1 (even) or disjunct 2 (odd). This

23. Al-Fanārī comments, "because either it is divided into two equal parts or it is not."

given number selected as a test of the proposition is called the true disjunct (*al-ṣādiq*). Al-Fanārī explains that the syllogism is true because if the true disjunct (*al-ṣādiq*) from the minor premise is an odd number, then that true disjunct's number would be one of the three disjuncts of the conclusion, namely, (1) odd, or (2) divisible into two even numbers, or (3) divisible into two odd numbers. If the true disjunct were an even number, and even numbers are limited to the two disjuncts from the major premise—divisible into two even numbers and divisible into two odd numbers—then the true disjunct would be one of the two disjuncts from the major premise that are repeated in the conclusion alongside oddness from the minor premise. Therefore, the conclusion that is composed of these three disjuncts would be absolutely true since the true disjunct would be a number that is either odd or even, and even numbers are divisible into two even numbers or divisible into two odd numbers.

(3) one categorical and one conditional

The third category of the hypothetical syllogism is composed of a categorical proposition and a conditional proposition. For example:

- If this is human, then it is an animal.
- Every animal is a body.
- Therefore, if this is a human, then it is a body.

Al-Fanārī explains that this holds true because whatever truthfully applies to that to which the entailed's (*lāzim*) meaning applies also applies to the entailer (*malzūm*), absolutely without exception. Al-Fanārī is justifying the conclusion, so he means that whatever can be truthfully applied to every instance of the entailed from the minor premise can also be truthfully applied the entailer of the minor premise. In the major premise we find 'body' predicated of every instance of the entailed from the minor premise ('animal'), so 'body' can also be applied to or predicated of the entailer of the minor premise ('human'). In other words, since 'body' can be applied to every instance of 'animal', and every human is an animal, then 'body' can be applied to 'human'. Whatever applies to the entailed's instances applies to the entailer.

(4) one categorical and one disjunctive

The fourth category of the hypothetical syllogism is composed of a categorical proposition and a disjunctive hypothetical proposition. For example,

- Every number is either even or odd.
- Every even (number) is divisible into two equal parts.
- Therefore, every number is either odd or divisible into two equal parts.

Al-Fanārī explains why this syllogism leads to its conclusion, namely, because the equivalent of one of two opposites is the opposite of the other. That is, given that the disjuncts of evenness and oddness are opposites, a term or phrase that signifies the equivalent of one disjunct will be the opposite of the other disjunct. Since 'that which is divisible into two parts' is the equivalent of 'even number', and 'even number' is the opposite of 'odd number', 'that which is divisible into two parts' is the opposite of 'even number'.

(5) one conditional and one disjunctive

The fifth and final category of the hypothetical syllogism when divided according to its composition of one or more hypothetical propositions is that syllogism composed of a conditional hypothetical proposition and a disjunctive hypothetical proposition. For example:

- If this is a human, then it is an animal.
- Every animal is either white or black.
- Therefore, if this is a human, then it is either white or black.

Al-Fanārī justifies the productivity of this syllogism, stating that dividing that to which the entailed applies entails dividing the entailer. That is, the division of everything to which the entailed 'animal' applies—i.e., every instance of animal—into white and black entails the division of the entailer 'human' into white and black. Since 'human' is the entailer of the entailed 'animal' in the minor premise, and every instance of the entailed 'animal' is white or black, then every human is either white or black.

Having exhaustively treated the one category of categorical connective syllogism and the five categories of the hypothetical connective syllogism according to the logically possible combinations of categorical, conditional, and disjunctive propositions, al-Fanārī acknowledges that exhaustive treatment of their validly yielding conclusions (*intāj*) has not been treated in al-Abharī's text nor in al-Fanārī's commentary. While budding students of logic may ask for an explanation of this subject, they are instead directed to the longer commentaries, wherein extensive treatment of the conditions and detailed proofs for the yielding of conclusions from connective syllogisms may be found.

The Divisions of the Exceptive Syllogism (*al-qiyās al-istithnāʾī*)

As the logicians explain, the "exceptive" syllogism is so called because the second premise of the syllogism begins with exceptive particles like "except,"

"however," or "but":[24]

- If the sun has risen, then day has come.
- Except, the sun has risen.
- Therefore, the day has come.

However, some translators emphasize the fact that it repeats the antecedent verbatim or repeats the negation of the consequent by stating its contradictory opposite (*naqīḍ al-tālī*), and as such they translate it as the "repetitive" or "reiterative" syllogism.[25]

Al-Fanārī first gives a full summary of the investigation into the exceptive syllogism, before narrating and commenting on al-Abharī's text. He begins with a comprehensive division of the exceptive syllogism by stating that its first premise is necessarily either

- a conditional hypothetical proposition
- or a disjunctive hypothetical, which will either be
  - strict
  - mutually exclusive
  - or totally exhaustive

He then lists ten productive kinds of exceptive syllogisms, divided according to the configurations of their premises. The first two consist of conditional hypothetical propositions in their first premises, and these are productive when either the antecedent is affirmed or the consequent negated.

Conditional

(1) The first is constructed of a conditional hypothetical proposition in the first premise, followed by the affirmation of the antecedent in the second premise, producing the affirmation of the consequent in the conclusion. One concludes that the consequent is affirmative by means of affirming the antecedent. For example:

- If the sun has risen, then day has come.
- Except, the sun has risen.
- Therefore, day has come.

24. Quṭb al-Dīn al-Rāzī, *Shurūḥ al-Shamsiyya* (Cairo: al-Maṭbaʿa al-Amīriyya, 1905), 2:190; Ismāʿīl Gelenbevī, *Sharḥ Īsāghūjī li-l-Gelenbevī*, ed. ʿAbdallāh Hiçdönmez (Istanbul: Maktabat al-Ḥanīfiyya, n.d.), 125.
25. See Kwame Gyekye, "The Term *Istithnā'* in Arabic Logic," in *American Oriental Society* 92, no. 1 (March 1972), 88–92.

(2) The second is constructed of a conditional hypothetical proposition in the first premise, followed by the negation of the consequent in the second premise, producing the negation of the antecedent. One concludes that the antecedent is negated by means of negating the consequent. For example:

- If the sun has risen, then day has come.
- Except, the day has not come.
- Therefore, the sun has not risen.

That amounts to two examples of the exceptive syllogism. Next, al-Fanārī moves on to four examples of exceptive syllogisms comprised of a strict disjunctive hypothetical proposition in the first premise:

Strict disjunctive

(3) The third is constructed of a strict disjunctive hypothetical proposition in the first premise, followed by the negation of the antecedent, producing the affirmation of the consequent. One concludes that the consequent is affirmed by means of negating the antecedent. For example:

- Every number is either even or odd.
- Except, it is not even.
- Therefore, it is odd.

(4) The fourth is constructed of a strict disjunctive hypothetical proposition in the first premise, followed by the negation of the consequent, producing the affirmation of the antecedent. One concludes that the antecedent is affirmed by means of negating the consequent. For example:

- Every number is either even or odd.
- Except, it is not odd.
- Therefore, it is even.

(5) The fifth is constructed of a strict disjunctive hypothetical proposition in the first premise, followed by the affirmation of the antecedent, producing the negation of the consequent. One concludes that the consequent is negated by means of affirming the antecedent. For example:

- Every number is either even or odd.
- Except, it is even.
- Therefore, it is not odd.

(6) The sixth is constructed of a strict disjunctive hypothetical proposition in the first premise, followed by the affirmation of the consequent, producing

the negation of the antecedent. One concludes that the antecedent is negated by means of affirming the consequent. For example:

- Every number is either even or odd.
- Except, it is odd.
- Therefore, it is not even.

This amounts to four more examples of the exceptive syllogism. Then al-Fanārī moves on to two examples of exceptive syllogisms comprised of a mutually exclusive disjunctive hypothetical proposition in the first premise.

Mutually exclusive: Only by affirmation

Exceptive syllogisms comprising a mutually exclusive disjunctive hypothetical proposition are only productive by means of the affirmation of the antecedent or the consequent, producing thereby the negation of the consequent or antecedent, respectively. No conclusion is produced by means of the affirmation of the antecedent or consequent.

(7) The seventh is constructed of a mutually exclusive disjunctive hypothetical proposition in the first premise, followed by the affirmation of antecedent, producing the negation of the consequent. One concludes that the consequent is negated by means of affirming the antecedent.

- This thing is either a stone or a tree.
- Except it is a stone.
- Therefore, it is not a tree.

(8) The eighth is constructed of a mutually exclusive disjunctive hypothetical proposition in the first premise, followed by the affirmation the consequent, producing the negation of the antecedent. One concludes that the antecedent is affirmative by means of affirming the consequent.

- This thing is either a stone or a tree.
- Except it is a tree.
- Therefore, it is not a stone.

This amounts to two more examples. Al-Fanārī closes his division of the exceptive syllogism by mentioning the syllogism that comprises the totally exhaustive proposition in the first premise.

Totally exhaustive: Only by negation

Exceptive syllogisms comprising a totally exhaustive disjunctive hypothetical

proposition are only productive by means of the negation of the antecedent or the consequent, producing thereby the affirmation of the consequent or antecedent, respectively.

(9) The ninth is constructed of a totally exhaustive disjunctive hypothetical proposition in the first premise, followed by the negation of the antecedent, producing the affirmation of the consequent. One concludes that the consequent is affirmed by means of the negation of the antecedent.

- Zayd is either in the sea or he is not drowning.
- Except he is not in the sea.
- Therefore, he is not drowning.

10) The tenth is constructed of a totally exhaustive disjunctive hypothetical proposition in the first premise, followed by the negation of the consequent, producing the affirmation of the antecedent. One concludes that the antecedent is affirmed by means of the negation of the consequent.

- Zayd is either in the sea or he is not drowning.
- Except he is not *not* drowning (that is, he is drowning).
- Therefore, he is in the sea.

Taken altogether, the kinds of productive exceptive syllogisms amount to ten, as discussed above, while the kinds of non-productive exceptive syllogisms amount to six: two with conditional premises, two with mutually exclusive disjunctive premises, and two with totally exhaustive disjunctive premises. Only the exceptive syllogism with strict disjunctive hypothetical propositions produces conclusions through the affirmation or negation of either the antecedent and consequent. The exceptive syllogism with a mutually exclusive proposition produces conclusions by means of affirmation of the antecedent or consequent, not negation. The exceptive syllogism with a totally exhaustive proposition produces conclusions by means of negation of the antecedent or consequent, not affirmation. The exceptive syllogism with a conditional proposition produces conclusions by means of affirmation of the antecedent or negation of the consequent, not negation of the antecedent or affirmation of the consequent.

Al-Fanārī concludes his summary by stating that what is covered above[26] is the full discussion of the matter, while al-Abharī himself only alluded to some

26. What is covered above is a summary of al-Fanārī's investigation of the exceptive syllogism with additional explanations drawn from al-Fawzī and application of principles based on examples drawn from the chapter on propositions.

of what he mentioned. Al-Abharī's briefer discussion, along with al-Fanārī's commentary, is as follows:

The exceptive syllogism comprising an affirmative entailing conditional hypothetical proposition

As for the exceptive syllogism, the hypothetical proposition that is posited as its first premise, if it is an affirmative entailing conditional hypothetical proposition—rather than coincidental conditional—then excepting the antecedent itself produces the consequent itself. For example:

- If this is a human, then he is an animal.
- Except he is human.
- Therefore, he is an animal.

…because the existence of the entailer (i.e., 'human') entails the existence of the entailed (i.e., 'animal').

Note that al-Abharī uses the phrase "excepting the antecedent (or consequent)" rather than "affirming the antecedent (or consequent)" as al-Fanārī had done in his summary. Al-Abharī also uses the phrase "excepting the contradictory opposite of the antecedent (or consequent)" rather than "negating the antecedent (or consequent)." As al-Fanārī points out, "excepting" is more general than affirmation or negation, so excepting means either to affirm or to negate.

The excepting of the contradictory opposite of the consequent produces the contradictory opposite of the antecedent. For example:

- If this is a human, then he is an animal.
- Except he is not an animal.
- Therefore, he is not a human.

…because the non-existence of the entailed entails the nonexistence of the entailer. In other words, the nonexistence of 'animal' entails the nonexistence of 'human' because all humans are animals, while not all animals are humans. As such, excepting of the consequent itself (i.e., 'animal') is not productive. For example:

- If this is a human, then he is an animal.
- Except it is an animal.
- Therefore, it could be a horse, human, cat, etc. No particular animal is logically entailed.

Also, the excepting of the contradictory opposite of the antecedent does not produce anything. For example:

- If this is a human, then he is an animal.
- Except it is not a human.
- So, again, it could be a horse, human, cat, etc. Likewise, being non-human does not exclude its being a stone or a tree or something else. No particular animal or other object is logically entailed.

As mentioned previously, in this section al-Fanārī follows al-Abharī in using the term "excepting" rather than "affirmation or negation." Al-Fanārī then states that excepting (*al-istithnā'*) is more general than affirmation (*al-waḍ'*) or negation (*al-raf'*); that is, it is a term that can be used in place of either. Affirmation is called *excepting the thing itself* (*istithnā' al-'ayn*), and negation is called *excepting the contradictory opposite* (*istithnā' al-naqīḍ*).

Objection regarding 'coextensive entailment' and response

Regarding the claim that excepting the consequent itself does not produce the antecedent itself—for instance, "Except it is an animal" does not entail it is human—and that excepting the contradictory opposite of the antecedent does not produce the contradictory opposite of the consequent—for instance, "Except it is not a human" does not entail that it is not an animal—al-Fanārī anticipates an objection wherein the opponent says:[27]

> It is correct that excepting the consequent does not produce the antecedent and excepting the contradictory opposite of the antecedent does not produce the contradictory opposite of the consequent in the case when the entailment (*mulāzama*) is more general, such as when the entailed 'animal' is more general than the entailer 'human' in the following example:
>
> - If it is a human, then it is an animal.
> - Except it is a human.
> - Therefore, it is an animal.
>
> But as for when the entailment relationship is coextensive—as in the case of the proposition "If this is a human, then it is rational," where 'human' and 'rational' are coextensive (*mutasāwiyān*)—then the excepting of each itself (i.e., the antecedent or consequent) produces the other itself (i.e., the consequent or antecedent), as in the following example:

27. Al-Fawzī, *Khulāṣa*, 135–6.

Example 1a: excepting the consequent, which al-Fanārī declared non-productive:

- If this is a human, then it is rational.
- Except it is rational.
- Therefore, it is human.

And Example 2a: excepting the antecedent, which all agree is productive:

- If this is human, then it is rational.
- Except, it is human.
- Therefore, it is rational.

In this case, the excepting of the antecedent entails the consequent, and the excepting of the consequent entails the antecedent, which contradicts al-Fanārī's earlier claim that excepting the consequent does not produce any conclusion.

Furthermore, the opponent continues, the excepting of the contradictory opposite of each can produce the contradictory opposite of the other, as in the following example:

Example 1b: excepting the contradictory opposite of the consequent, which all agree is productive:

- If this is a human, then it is rational.
- Except it is not rational.
- Therefore, it is not human.

And Example 2b: excepting the contradictory opposite of the antecedent, which al-Fanārī claimed does not produce:

- If this is a human, then it is rational.
- Except it is not human.
- Therefore, it is not rational.

In this case, the excepting of the contradictory opposite of the antecedent produces the contradictory opposite of the consequent and vice versa, which contradicts al-Fanārī's earlier claim that excepting the contradictory opposite of the antecedent does not produce any conclusion.

The objector closes his objection by citing the author[28] of *al-Fuṣūl*: "The judgment in the four forms (*al-ṣuwar al-arbaʿ*) is absolute (*qaṭʿī*)." That is, in the

28. This probably refers to *al-Fuṣūl fī ʿilm al-jadal* by Burhān al-Dīn Muḥammad al-Nasafī (d. 687/1288), as suggested by the editor in Muṣṭafā Shaykh Muṣṭafā (ed.), *al-Fawāʾid*, 122. See Burhān al-Dīn al-Nasafī, *Sharḥ al-Fuṣūl fī ʿilm al-jadal*, ed. Sharīfa bt. ʿAlī b. Sulaymān

case of the entailing conditional hypothetical proposition wherein the entailer and entailed are equal, or coextensive, the excepting of the entailer and entailed themselves as well as the excepting of the contradictory opposites of the entailer and entailed will produce, in each of the four cases, a valid conclusion.

Al-Fanārī's reply is that a coextensive entailment relationship really consists of only two entailments—the two productive kinds—not four.[29] That is, the only two entailments are that the antecedent entails the consequent and that the contradictory opposite of con

sequent entails the contradictory opposite of antecedent. While it appears that the inverse of each is also productive in exceptive syllogisms whose hypothetical proposition contains an antecedent and consequent that are coextensive, due to the interchangeability of the antecedent and consequent and the interchangeability of the contradictory opposite of the antecedent and the contradictory opposite of the consequent, the reality is that there are only the two productive kinds of entailment.

Al-Fanārī explains that this is because each pair of judgments (i.e., the conclusions) in the four aforementioned syllogisms is actually the single entailment relationship between two productive entailments. The first pair of judgments are those that result from producing the antecedent itself by excepting the consequent or producing the consequent itself by excepting the antecedent. The second pair of judgments are those that result from producing the contradictory opposite of the antecedent by excepting the contradictory opposite of the consequent or producing the contradictory opposite of the consequent by excepting the contradictory opposite of the antecedent.

That is, regarding the first pair of judgments, the consequent entails the antecedent (entailment 1a) and the antecedent entails the consequent (entailment 2a), which counts as a single bi-directional entailment relationship (i.e., entailment 1a entails entailment 2a and vice versa). Then, regarding the second

(Riyadh: Jāmiʿat al-Malik Saʿūd, 2012), 52. The glossator al-Kānqarī brings into the dicussion al-Fanārī's own work *Fuṣūl al-badāʾiʿ*, but he does not explicitly link the reference to al-Fanārī's citation here. ʿAbdallāh al-Kānqarī, *Ḥāshiya ʿalā al-Fanārī* (Istanbul: al-Ḥājj Ibrāhīm Ṣāʾib, 1242 AH), 261–2. The editor in al-Ẓāhirī (ed.), *Ḥāshiyat Qūl Aḥmad*, 422 states that the reference is to Ibn Sīnā.

29. The explanation of al-Fanārī's response presented here is consistent with the commentary of al-Fawzī, *Khulāṣa*, 136. Another way of reading al-Fanārī's response is that, in the case when the entailer and entailed are coextensive (*mutasāwī*), what appears to be a single entailment relationship (*mulāzama*) producing four conclusions is in reality two entailment relationships—with a reversal of the roles of entailer and entailed—each producing two conclusions. See Nashāba, *Nathr al-darārī*, 173.

pair of judgments, the contradictory opposite of the consequent entails the contradictory opposite of the antecedent (entailment 1b) and the contradictory opposite of the antecedent entails the contradictory opposite of the consequent (entailment 2b), which counts as another single bi-directional entailment relationship (i.e., entailment 1b entails entailment 2b and vice versa).

Consider the coextensive entailment relationship between the antecedent 'human' and the consequent 'rational' in the following syllogism, which appears to contradict the rule that excepting the consequent itself should not produce the antecedent itself:

- If this is a human, then it is rational.
- Except it is rational.
- Therefore, it is human.

Despite the form of the syllogism and the rule under dispute, which dictates that the antecedent must be the entailer and the consequent must be the entailed, in this case the existence of the consequent ('rational') in fact entails the existence of the antecedent ('human'). From one vantage (entailment 1a above), the antecedent ('human') is the entailer; it entails the existence of the entailed ('rational'). But from another vantage (entailment 2a above), the consequent ('rational') is the entailer: it entails the existence of the entailed ('human'). The single bi-directional entailment relationship between antecedent and consequent comprises both vantages. The crucial point is that, with regard to the production of the antecedent by excepting the consequent, the entailment holds true not inasmuch as the consequent ('rational') is the entailed but rather inasmuch as it is the *entailer*. This shows that there are two entailment relationships at play in this one example—one from the vantage of the antecedent and one from the vantage of the consequent—but when excepting the consequent produces the antecedent, the second vantage in which the consequent is the entailer and antecedent is the entailed is primarily considered. That is, due to the interchangeability of the antecedent and consequent due to their being coextensive, the syllogism whose outward form contradicts the rule under discussion is viewed through the vantage of the productive entailment (i.e., excepting antecedent produces the consequent). In a sense, one inverts the first premise, making the consequent ('rational') the antecedent and the antecedent ('human') the consequent such that it reads:

- If this is rational, then it is human.
- Except it is rational.

- Therefore, it is human.

Likewise, al-Fanārī applies the same argument to the rule regarding the non-productivity of excepting the contradictory opposite of the antecedent, stating that the nonexistence of the entailer—e.g., 'human'—entails the nonexistence of the entailed—e.g., 'rational'—not inasmuch as 'human' is the entailer but rather inasmuch as it is the entailed (that is, entailed by 'rational').

- If this is a human, then it is rational.
- Except it is not human.
- Therefore, it is not rational.

When considering the coextensive entailment between the antecedent 'human' and the consequent 'rational', when excepting the contradictory opposite of the antecedent ('non-human') produces the contradictory opposite of the consequent ('non-rational'), then from one vantage (1b above) the antecedent ('human') is the entailer and the consequent ('rational') is the entailed. But, from another vantage (2b above), the consequent ('rational') is the entailer and the antecedent ('human') is the entailed. The crucial point in this case is that the entailment holds true not inasmuch as 'human' is an entailer but rather inasmuch as it is an *entailed*. This shows that there are two entailment relationships at play in this example too: one from the vantage of the antecedent and one from the vantage consequent. But, when excepting the contradictory opposite of the antecedent ('non-human') produces the contradictory opposite of the consequent ('non-rational') (2b above), the second vantage in which the consequent ('rational') is the entailer and the antecedent ('human') is the entailed is primarily considered.

That is, due to the interchangeability of the antecedent and consequent due to their being coextensive, the syllogism whose outward form contradicts the rule under discussion is viewed through the vantage of the other productive entailment (i.e., excepting the contradictory opposite of the consequent produces the antecedent). As before, in a sense, one inverts the first premise, making the consequent ('rational') the antecedent and entailer and the antecedent ('human') the consequent and entailed such that it reads:

- If this is rational, then it is human.
- Except it is not human.
- Therefore, it is not rational.

The upshot is that the mutual entailment of antecedent and consequent counts as one entailment—they are collapsible into the valid entailment of the

consequent by the excepting of the antecedent—and the mutual entailment of the contradictory opposites of the antecedent and consequent counts as another entailment—they are collapsible into the valid entailment of contradictory opposite of the antecedent by the excepting of the contradictory opposite of the consequent—totalling two entailments, not four. This is because the matter of the propositions consists of interchangeable coextensive antecedents and consequents, but the only syllogisms that are productive are the ones that except the antecedent or the contradictory opposite. This argument affirms the rule that excepting the consequent or the contradictory opposite of the antecedent does not produce.

As al-Fawzī and Qūl Aḥmad point out, the apparent productivity of excepting the consequent or the contradictory opposite of the antecedent is due to the specific material of the proposition—namely, the coextensiveness of antecedent ('human') and consequent ('rational')—and not due to the types of premises. In fact, al-Fawzī says that al-Fanārī could have been more concise by simply mentioning this. Note that the meaning of "productivity" in this context is productivity that is due the kinds of premises in and of themselves without the intermediary consideration of the matter.[30]

The exceptive syllogism comprising a disjunctive hypothetical proposition

The second type of exceptive syllogism that al-Abharī now turns to is that wherein the first premise is a strict disjunctive hypothetical proposition such as "This number is either even or odd." Excepting either the antecedent or the consequent itself produces its contradictory opposite because the truth of one of two disjuncts entails the falsity of the other. For example:

- This number is either even or odd.
- Except it is even.
- Therefore, it is not odd.

And:

- This number is either even or odd.
- Except it is odd.
- Therefore, it is not even.

The above principle regarding the excepting of either the antecedent or consequent itself producing its contradictory opposite applies to the strict

30. Qūl Aḥmad, *Ḥāshiyat Qūl Aḥmad*, 423; al-Fawzī, *Khulāṣa*, 136; Kānqarī, *Ḥāshiya*, 262.

and the mutually exclusive disjunctive propositions.

Next, al-Abharī informs the reader that excepting the contradictory opposite of either the antecedent or the consequent produces either the consequent or antecedent itself. This is because the falsity of one of two disjuncts entails the truth of the other. For example:

- This number is either even or odd.
- Except it is not even.
- Therefore, it is odd.

And:

- This number is either even or odd.
- Except it is not odd.
- Therefore, it is even.

This aforementioned principle applies to the strict and totally exhaustive disjunctive propositions.

Al-Fanārī closes this section by acknowledging that the content of al-Abharī's book drops the details of the exceptive syllogism. Al-Fanārī has mentioned the core upon which these details depend. As for the examples that al-Abharī and al-Fanārī excluded, he tells the reader that they are not hidden. Indeed, the above summary of al-Fanārī's commentary draws some of these examples from the works of his commentators, who kindly aided the student with copious examples.

The Five Arts

The study of logic is generally divided into formal logic and material logic. Formal logic is concerned with validity; that is, it treats whether or not the conclusion of a syllogism is entailed by the premises, regardless of whether or not those premises contain truthful statements. An example is "Fuzzball is a cat; all cats are astronauts; therefore, Fuzzball is an astronaut." Such a syllogism is formally valid, despite the major premise being demonstrably false (at the time of this writing). Material logic treats the content of the premises, whether they are true or false. However, since veracity and falsity cannot always be known with certainty, the study of material logic starts with the discussion of premises that are based on absolutely certain knowledge (*yaqīn*), but it follows that with a treatment of arguments whose premises consist of probabilistic knowledge (*ẓann*). Additionally, since one's conviction in the veracity or falsity

of a proposition is not always rooted in verifiable or probabilistic evidence but may also be based on trust in the speaker's authority, the popularity of claim, the rhetorical persuasiveness of the claimant, or the resemblance of the premises to true or probable statements, arguments whose premises are not based on absolutely certain premises are parsed out into various categories so that the scholar can identify the epistemic source and reliability of the premises.

Al-Fanārī lays out each of the five categories of argument: demonstration, dialectic, rhetoric, poetics, and sophistry. Al-Fanārī follows al-Abharī closely; however, he includes within the discussion of demonstration a useful justification for the division of the absolutely certain premises (*al-yaqīniyyāt*) in to the six categories of self-evident premises: observational premises, experiential premises, intuitively inferred premises, mass-reported premises, and premises whose syllogisms accompany them.

Demonstration

Lexically, demonstration (*burhān*) means proof, but in its technical usage among the logicians it means "a syllogism composed of absolutely certain premises in order to yield an absolutely certain conclusion." This definition is sufficiently general to include true premises that are self-evident and non-reflective propositions—whose truth is known without intentional reflection—as well as propositions that do require willful reflection (*naẓar*). Thus, demonstration includes syllogisms whose premises are known with immediacy and without need for reflection and investigation, and it also includes syllogisms whose premises require reflection and investigation. For example:

- No part is greater in size than the whole.
- This steering wheel is a part (of this car).
- Therefore, this steering wheel is not greater in size than the whole (of this car).

Mere knowledge of the meanings of 'part', 'whole', and 'steering wheel' produces certainty that the conclusion is true. Likewise, the following syllogism is a demonstration, despite one of its premises requiring willful mental reflection:

- The universe had a beginning.
- All things that have a beginning require something to bring them into existence.
- Therefore, the universe requires something to bring it into existence.

That the universe had a beginning is a proposition that requires reflection,

whereas the fact that everything that comes into being requires something to bring it into existence is known with immediacy (though there are proofs to address those who affirm infinite regresses, the coming into existence of something from nothing, or circular causality). Both syllogisms, then, fall under the category of demonstration, as each is composed of absolutely certain premises.

Al-Fanārī demonstrates the validity of the definition through mention of its genus, 'syllogism', which applies to all five categories of syllogisms mentioned herein, namely, demonstrative argument, dialectical argument, rhetorical argument, poetical argument, and fallacious argument (sophistry and contentious disputation). Al-Fanārī then supplies the differentia in this definition: "composed of certain premises," which excludes the remaining four arts, which include categories of premises that are not certain. Al-Fanārī points out that this definition goes beyond merely mentioning the genus and differentia in that it adds additional components in order to include all four Aristotelian causes. The four causes mentioned or implied in this definition are:

- the formal cause, which is signified by "composite" through concordance (*muṭābaqa*)
- the efficient cause, which is signified by "composite" through necessary implication (*iltizām*), and it is the rational capacity
- the material cause, which is signified by "certain premises"
- and the final cause, which is signified by the phrase "in order to obtain certainty"

This renders the definition sufficiently inclusive to cover all demonstrative syllogisms—whether based on immediate or reflective premises—and sufficiently exclusive such that rhetorical, dialectical, poetical, and fallacious arguments are not covered by this definition.

The six categories of certain premises

Al-Fanārī mentions the six categories of absolutely certain premises which are the most common premises of demonstrative syllogisms. The basis of the division (*wajh al-taqsīm*) at the first level of division is the epistemic channel through which the premises are obtained, namely, via the intellect alone or via the intellect after sensory experience. The basis of the division at the second level is whether or not an additional variable is necessary to reach a judgment after sensory experience.

The reasoning behind the division is as follows: Absolutely certain propositions are either known to the mind alone without reference to other epistemic

channels such as the senses or spiritual intuition, or they are not. If they are known to the mind alone, then either that is sufficient to realize the veracity of the proposition, or an additional intermediary mental variable must be present in the mind. The first are known as self-evident propositions, while the second are called "propositions whose syllogisms accompany them." If a proposition is not known to the mind alone but instead requires input from the senses, then either a single sensory experience is sufficient or it is not. Propositions whose veracity is known via a single sensory experience are called sense-based observational propositions, and if that single experience is via one of the five external senses, then the proposition is called an external observational proposition. If that single experience is via one of the five internal senses,[31] then the proposition is called an internal observational proposition. If the intellect requires more than a single sensory experience in order to form a judgment, then either (a) it relies on the repeated auditory sensory experience of hearing the same report from a whole group of people along with the hidden inference that they could not have all conspired upon a lie—these are called mass-transmitted propositions—or (b) it requires repeated sensory experience along with a hidden inference that there is a causal relationship between the presence of X and the presence of Y—these are called experiential premises—or (c) it relies on repeated sensory experience, a hidden inference that there is a causal relationship between variables X and Y, and the capacity of sudden realization (*ḥads*) of the nature of the causal relationship—these are called intuitively inferred propositions.

A summary of al-Fanārī's treatment of the certainty-producing propositions is as follows:

- known to the mind alone:
  - self-evident propositions (*awwaliyyāt*)
  - propositions whose syllogisms accompany them (*qaḍāyā qiyāsātuhā maʿahā* or *fiṭriyyāt*)
- known to the mind after sensory experience:
  - intellect passes judgment relying on a single sensory experience and nothing else:
    - sense-based observational propositions (*mushāhadāt*):

31. That is, the common sense (*al-ḥiss al-mushtarak*), the imaginal memory (*al-khayāl*), the estimation (*al-wahm*), the retentive faculty (*al-ḥāfiẓa al-dhākira*), and the active imagination (*al-mutakhayyila*).

- external observational propositions (*maḥsūsāt*)
- internal observational propositions (*wijdāniyyāt*)

○ intellect passes judgment relying on something else in addition to a single sensory experience:

■ experiential propositions (*mujarrabāt*)

■ intuitively inferred (*ḥadsiyyāt*)

■ mass-transmitted (*mutawātirāt*)

Type of Proposition	Rational	Additional Rational Variable before Sense Observation	Rely on Single Sense Observation	Rely on Additional Sense Observation	Rely on Hidden Inference
Awwaliyyāt	Y	-	-	-	-
Qaḍāyā qiyāsātuhā maʿahā	Y	Y	-	-	-
Mushāhadāt	Y	-	Y	-	-
Wijdāniyyāt	Y	-	Y	-	-
Mujarrabāt	Y	-	Y	Y	Y
Ḥadsiyyāt	Y	-	Y	Y	Y
Mutawātirāt	Y	-	Y	Y	Y

The reasoning provided for the precise division of absolutely certain premises into six types is not meant to exhaustively capture all possible examples. While there are other scenarios in which certainty can be obtained, such as intuitively inferred propositions that are not based on sensory experience or propositions wherein the intellect passes judgment after spiritual (non-sensory) experiences, introductory books of logic focus on these six since the philosophical sciences generally rely on material derived from the intellect and the senses. The details of these six types of premises are summarized below.

Enumerating the six categories of absolutely certain premises (*taʿdād al-yaqīniyyāt*)

The order provided by al-Fanārī and organized by the perspective of categorization based on epistemic channels, single or repeated observance, and the presence or absence of hidden inference was discussed above. Al-Abharī, however, lists them without reference to the organizing principles outlined

by al-Fanārī, saying:

1. Self-evident premises (*awwaliyyāt*): Two examples are "One is half of two" and "The whole is greater than its part." These two judgments do not rely on anything except the conception of the subject and the predicate. Al-Fanārī addresses a potential objection, saying that one who falsely imagines that the part could be larger than the whole—as in the case of elephantiasis—does not comprehend the meaning of 'whole' and 'part'. Imagining a case of elephantiasis in which a diseased limb becomes larger than the body itself would be under normal conditions, the objector supposes that the part has become larger than the whole. Clearly, however, the diseased part is still a part of the whole, and its increase in size has also made the whole larger.
2. Observational premises (*mushāhadāt*): These premises are also called sensory premises (*maḥsūsāt*). Sometimes the category of *mushāhadāt* is divided into external observational premises (*maḥsūsāt*) and internal observational premises (*wijdāniyyāt*). Internal observational premises generally are not actionable for other than the one upon whose experience they are based, and as such they do not play a role in the philosophical sciences. So al-Abharī and al-Fanārī focus on external observational premises, such as "The sun shines," wherein the object of perception is observed by means of sight. Al-Abharī also gives the example of "Fire burns," which is sensed by means of touch.
3. Experiential premises (*mujarrabāt*): Al-Abharī gives the example "Drinking scammony purges yellow bile." Since this medicinal cause-and-effect relation is universally witnessed, or nearly so, certainty in scammony's purging quality is known with certainty based on repeated observation. Were it not the case that it had this quality, then the purging of yellow bile would not occur with such regularity.
4. Intuitively inferred premises (*ḥadsīyyāt*): These are premises in which certainty is obtained by the premises and conclusions (*al-mabādī wa-l-maṭālib*) being present to the mind in one instant. The instantaneous presence of premises and conclusions in the mind is the meaning of intuitive inference (*ḥads*). There is no movement of the mind in intuitive inference, as opposed to reflective thought (*fikr*), which is the gradual and step-by-step obtainment of knowledge and is not instantaneous. People might differ in their capacity for reflective thought by speed or slowness, but as for intuitive inference, there is no difference except

in experiencing it infrequently or frequently, since it is instantaneous. Something that occurs instantaneously in one fell swoop cannot be said to differ in speed, but it can differ in quantity. An example is "The light of the moon is derived from the sun." This is obtained by means of witnessing the different phases of the moon in relation to its proximity or distance from the sun. While repeated observation is necessary, it is upon reaching a particular threshold of observation that the premises and conclusions appear instantaneously to the mind. This is different from inductive observation, testing hypotheses, and the likes, which are kinds of reflective thought.

5. Mass-transmitted premises (*mutawātirāt*): They are propositions by which the intellect judges that an auditory report heard multiple times is true because it was narrated by a whole group of people (*qawm*) that is so large that the intellect deems it conventionally impossible that the whole group could have conspired upon a falsehood. Its corroboration (*miṣdāq*)—i.e., that which signifies the truth of that ruling being certainly true rather than probabilistically true—is the actual obtainment of certainty in the person making the judgment, not a specific number of narrators, such as four, twelve, twenty, or forty. An example is the report that "Muḥammad ﷺ claimed prophecy and manifested miracles by his hand." Our knowledge of the veracity of that claim is like our knowledge of distant lands that one has not visited and past nations whose history reaches us through multitudes of reports, like "Antarctica is cold" and "Napoleon existed," for example.
6. Propositions whose syllogisms accompany them: An example is "Four is an even number." This is known to be true due to an intermediate term present in the mind. That intermediate term is 'divisible into two equal parts'. The mind is instantly able to arrange the syllogism "Four is divisible into two equal parts, and everything that is as such is an even number; therefore, four is an even number." The difference between this kind of premise and intuitively inferred premises as described above, among other things, is that this one does not require sense perception; it is known to the mind alone based on the meanings of the terms.

The remaining categories of the five arts are syllogisms whose premises are not absolutely certain. They are divided in the following way.

Premises whose material is not absolutely certain are either certainly false or not certainly false. Arguments based on premises that are certainly false

are called fallacious arguments and are of two types: contentious disputation and sophistry. They resemble truth or popularly accepted premises but are in fact demonstrably false, though that demonstration may entail constructing reflective demonstrative arguments (*burhān naẓarī*).

Those that are not certainly false are either probabilistically true rhetorical arguments—such as "This wall is about to fall since there are piles of dust falling from it"—or dialectical or poetical arguments which do not consider truth or falsehood. Dialectical arguments aim only to silence the opponent—which is different from the Islamic discipline of disputation (*munāẓara*), whose goal is to manifest truth—and poetical arguments aim to impact the soul of the listener, either eliciting expansive or contracting emotional states to move the listener. These remaining four forms of argument are discussed briefly below.

Dialectical Argument (Dialectics)

The second of the five arts mentioned by al-Abharī is dialectical argument (*al-jadal*). It is a syllogism composed from popular premises. The term 'syllogism' is its genus and 'composed from popular premises' is its differentia. Popularity differs according to times, places, populations, and other things. This difference is due to the reasons for popularity, such as obtaining a particular benefit or common yet non-universal cultural norms of etiquette (e.g., one never wears sandals to the opera).

Rhetorical Argument (Rhetoric)

Rhetorical argument (*al-khiṭāba*) is a syllogism composed of premises accepted from a reliable person, such as a prophet or a saint. Since the remaining four kinds of arguments that are listed after demonstration are, by definition, not certainty-producing, the inclusion of prophetic arguments is considered by some to be an error. Rather, prophetic arguments fall under the category of propositions whose syllogisms accompany them, for example:

- The judgment that wine is forbidden is a prophetic saying.
- All prophetic sayings are true.
- Therefore, the judgment that wine is forbidden is true.[32]

Another possible interpretation of the inclusion of prophetic premises that is epistemically consistent with al-Fanārī's religious worldview would be

32. Salih al-Ghursi, "Lecture 33," *Tasjīlāt al-Fawā'id al-fanāriyya* (recorded lectures, Konya, Türkiye, n.d.).

to interpret these as premises accepted probabilistically to be from a prophet, but not mass-transmitted. This proposed interpretation, however, has not been found in any of the commentaries consulted.

The other category of rhetorical argument is one composed of premises that are supposed and believed in with a preponderant belief, such as "This wall is collapsing because dust is falling from it and every wall from which dust falls is collapsing."

Poetical Argument (Poetics)

Poetics is a syllogism composed of premises that cause the listener to incline towards something, such as "Wine is flowing rubies," or cause the listener to incline away from something, such as "Honey is vomit-inducing bile." Examples wherein these propositions serve as the minor premise of such arguments include:

- Wine is flowing rubies
- Everything that has that quality, drinking it causes happiness and energy.
- Therefore, drinking wine causes happiness and energy.

And:

- Honey is vomit-inducing bile.
- Everything that has this character, consuming it causes regret.
- Therefore, consuming honey causes regret.

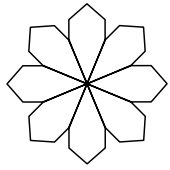
The examples given appear to imply the negative effects of poetics wherein something forbidden—such as consuming wine—can be spoken of in a manner that causes the breast to expand and the heart to incline towards it, while something permissible and beneficial—such as consuming honey—can be spoken of in a manner that causes the breast to contract and the incline away from it.

Fallacious Argument

Fallacious argument is of two types. One is a syllogism composed of false premises that resemble truth while not being true, and it is called sophistry. The other is a syllogism composed of premises that resemble popularly accepted premises; this is called contentious disputation, or, alternatively, premises that are falsely imagined (*wahmiyya*). An example is "Beyond the world is a limitless void." This kind of syllogism, if a philosopher who seeks to deal only

in demonstration (*al-burhān*) is confronted with it, is sophistry, and if a dialectician—who debates only with the aim of silencing the opponent rather than manifesting truth—is confronted with it is called contentious disputation. So, al-Fanārī concludes, fallacious argument is limited to two categories: sophistry and contentious disputation.

Al-Fanārī closes with the statement that what is relied upon in the sciences is demonstration and nothing other than that because obtaining true beliefs and removing false beliefs is not obtained by other than demonstration.



Conclusion

Here ends al-Abharī's epistle in logic. While recensions differ, some editions include a prayer from al-Fanārī: May Allah seal our lives with true beliefs, protect us from false belief, raise us among the troops of the martyrs and the righteous, and cause us to reside in the highest (ranks) of heaven with the prophets and messengers. May peace and blessings of Allah Most High be upon our master Muḥammad and upon his family and companions all together.

In one edition, the following is included: Completed with the aid of Allah the All-Knowing—indeed He is the bestower of all success and blessings—on Friday, at the time of the afternoon prayer in the month of Muḥarram in the year 811 (AH).[33]

All praise is due to Allah, Lord of the worlds.

Since al-Fanārī said that he wrote his commentary between the morning and evening prayers on the shortest day of the year, and Muḥarram 811 AH corresponds to May 1408 CE, it is likely that this is the closing prayer of the copyist.

...

Translator's Conclusion

On this day, the 20th day of the month of Dhū l-Qaʿda in the year 1445 AH, corresponding to May 28th, 2024 (CE), this summary explanation of al-Fanārī's commentary on al-Abharī's *Īsāghūjī* was completed with the aid and mercy of Allah Most High in the blessed city of knowledge, Boston, Massachusetts. May it be of service to student and scholar alike who seek to benefit from the Fanārīan Benefits (*al-Fawāʾid al-fanārīyya*) found in this popular yet challenging commentary on al-Abharī's introductory treatise in logic entitled *Īsāghūjī*.

All praise is due to Allah Most High.

May peace and blessings be upon His beloved messenger, Muḥammad.

33. Qūl Aḥmad, *Ḥāshiyat Qūl Aḥmad*, 446.

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Arabic Text

شـــــرح إيســاغـوجي

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[الشعر]

﴿والشعر قياس مؤلف من مقدمات تنبسط منها النفس﴾ نحو «الخمر ياقوتة سيالة» ﴿أو تنقبض﴾ نحو «العسل مرة مهوعة»

[المغالطة]

﴿والمغالطة وهي قياس مؤلف من مقدمات كاذبة شبيهة بالحق﴾ ولا يكون حقا وتسمى **سفسطة** ﴿أو﴾ شبيهة ﴿بـ﴾المقدمات ﴿المشهورة﴾ وتسمى **مشاغبة** ﴿أو مقدمات وهمية كاذبة﴾ كما يقال «إن وراء العالم فضاء لا يتناهى» وهذا أيضا إن قوبل بها الحكيم تسمى **سفسطة** وإن قوبل بها الجدلي تسمى **مشاغبة** فالمغالطة منحصرة في قسمين السفسطة والمشاغبة

﴿والعمدة﴾ أي المعتمد عليه ﴿هو البرهان﴾ لا غير لأن تحصيل العقائد الحقة وتزييل[٣٦] العقائد الباطلة ليس إلا به[٣٧]

[الخاتمة]

﴿وليكن هذا آخر الرسالة في المنطق﴾ ختمنا الله بالعقائد الحقة وعصمنا عن العقائد الباطلة وحشرنا في زمرة الشهداء والصالحين وبوأنا في أعلى عليين مع النبيين والمرسلين وصلى الله تعالى على سيدنا محمد وعلى آله وصحبه أجمعين

تمت بعون الله العلام إنه ولي كل توفيق وإنعام في يوم الجمعة وقت العصر في شهر محرم في سنة حادي عشر وثماني مائة والحمد لله رب العالمين

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٣٦. هكذا في (ه) و (ك). في (ت): تزييف.

٣٧. هكذا في (ه) (ك) (ت). في (س): والعمدة هي البرهان وليكن هذا آخر رسالة في المنطق.

[تعداد اليقينيات]

وإلى تعدادها أشار بقوله ﴿إحداها أوليات كقولنا الواحد نصف الاثنين والكل أعظم من الجزء﴾ فهذان الحكمان لا يتوقفان إلا على تصور الطرفين فمن وهم أن الجزء قد يكون أعظم من الكل كما في داء الفيل فهو لم يتصور معنى الكل والجزء

﴿ومشاهدات﴾ وتسمى **محسوسات** أيضا ﴿كقولنا الشمس مشرقة﴾ في المدرك[٣٤] بالبصر ﴿والنار محرقة﴾ في المحسوس باللمس

﴿ومجربات كقولنا شرب السقمونيا يسهل الصفراء﴾ إذ لو لم يسهلها لما وقع الإسهال عقيب شربها كليا أو أكثريا فيتوقف اليقين فيها على تكرار المشاهدة

﴿وحدسيات﴾ أي مقدمات يحصل اليقين فيها بسنوح المبادئ والمطالب للذهن دفعة واحدة وهو المعني بالحدس ولا حركة فيه بخلاف الفكر فإنه تدريجي لا دفعي ولذا قد يكون اختلاف الناس فيه بالسرعة والبطء أما في الحدس فليس إلا بالقلة والكثرة لأنه دفعي ﴿كقولنا نور القمر مستفاد من الشمس﴾ بواسطة مشاهدة تشكلاته المختلفة قربا وبعدا منها

﴿ومتواترات﴾ وهي القضايا التي يحكم العقل فيها بواسطة السماع[٣٥] لأنها نقلها قوم يستحيل العقل تواطؤهم على الكذب ومصداقه حصول اليقين ﴿كقولنا محمد ﷺ ادعى النبوة وأظهر المعجزة﴾ فإنه كعلمنا بالبلدان النائية والأمم الماضية

﴿وقضايا قياساتها معها كقولنا الأربعة زوج بسبب وسط حاضر في الذهن وهو الانقسام بمتساويين﴾ فإن الذهن يرتب في الحال أن الأربعة منقسمة بمتساويين وكل ما كان كذلك فهو زوج فالأربعة زوج

[الجدل]

﴿و﴾الثاني من الصناعات الخمس ﴿الجدل وهو قياس﴾ جنس ﴿مؤلف من مقدمات مشهورة﴾ فصل وتختلف باختلاف الأزمنة والأمكنة والأقوام وغيرها

[الخطابة]

﴿والخطابة قياس مؤلف من مقدمات مقبولة من شخص معتقد فيه﴾ كنبي وولي ﴿أو مظنونة﴾ معتقد فيها اعتقادا راجحا نحو «هذا الحائط ينهدم لأنه ينتثر منه التراب وكل ما ينتثر منه التراب ينهدم فهذا الحائط ينهدم»

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٣٤. هكذا في (س) (ت) (ه). في (ك): فالمدرك.

٣٥. هكذا في (ه) و (س). في (ك) و (ت): التي يحكم العقل بها لأنها....

قلت الملازمة المساوية في الحقيقة ملازمتان فكل حكمين من الأربعة المذكورة هي الملازمة بين الملازمتين ألا ترى أن استلزام وجود اللازم وجود الملزوم فيها ليس من حيث إنه لازم بل من حيث إنه ملزوم وكذا استلزام عدم ملزوم عدم اللازم لا من حيث إنه ملزوم بل من حيث إنه لازم

[القياس الاستثنائي المشتمل على شرطية منفصلة]

﴿وإن كانت منفصلة فاستثناء عين أحد الجزئين ينتج نقيض الآخر﴾ لأن وجود أحد المعاندين صدقا يستلزم عدم الآخر فهذا في الحقيقية ومانعة لجمع

﴿واستثناء نقيض أحدهما ينتج عين الآخر﴾ لأن عدم أحد المعاندين كذبا يستلزم وجود الآخر وهذا في الحقيقية و مانعة الخلو ولفظ الكتاب ساكت عن التفصيل والأصل ما ذكرناه وعليه التعويل والأمثلة غير خافية

[الصناعات الخمس]

ومن أبواب المنطق الصناعات الخمس لأن المنطقي كما يبحث عن الصورة يبحث عن المادة فلما تم التلويح الى مباحث الصورة أشار إلى مباحث المادة أيضا فقال من جملة الصناعات الخمس[٣٢]

[البرهان]

﴿البرهان وهو قياس مؤلف من مقدمات يقينية لإنتاج اليقين﴾ أعم من أن يكون ضرورية أو مكتسبة منها فالقياس جنس يتناول الأقيسة الخمسة و(المؤلف) ذكر ليتعلق به قوله (من مقدمات يقينية) وهو يخرج الخطابة والجدل وغيرهما وقوله (لإنتاج اليقين) غاية ذكره ليشتمل التعريف على العلل الأربع فـ(المؤلف) إشارة إلى الصورة بالمطابقة وإلى الفاعل بالالتزام وهي القوة العاقلة و(المقدمات) مادة و(إنتاج اليقين) غاية

[الأقسام الستة من اليقينيات]

﴿وأما اليقينيات فستة أقسام﴾ لأن حكم العقل به إما بلا استعانة من الحس أو معها والأول إن لم يتوقف على وسط حاضر في الذهن فهو **الأوليات** وإن توقف فهو **قضايا قياساتها معها** والثاني إما أن لا يتوقف اليقين به بعد الإحساس على شيء آخر[٣٣] أو يتوقف والأول **المحسوسات** فالإحساس إن كان بالحس الظاهر فهو **المشاهدات** وإن كان بالحس الباطن فهو **الوجدانيات** وإن توقف فالحس إما حس السمع وهو **المتواترات** فإنها تتوقف على حكم العقل بامتناع تواطؤ المخبرين على الكذب أو غيره فإن توقف على تكرار المشاهدات فـ**المجربات** وإن توقف على الحدس فـ**الحدسيات** وهذا وجه الضبط لا الحصر العقلي

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٣٢. هكذا في (غ) و (ه). في (ك): الخسمة.

٣٣. هكذا في (ه) و (غ). في (س) (ك) (ت): شيء واحد.

﴿وإما من حملية ومنفصلة كقولنا كل عدد إما زوج وإما فرد و كل زوج فهو منقسم بمتساويين ينتج كل عدد إما فرد أو منقسم بمتساويين﴾ لأن المساوي لأحد المعاندين معاند للآخر

﴿وإما من متصلة و منفصلة كفولنا كلما كان هذا إنسانا فهو حيوان وكل حيوان فهو إما أبيض أو أسود ينتج كلما كان هذا إنسانا فهو إما أبيض أو أسود﴾ لأن انقسام كل قسم مما صدق عليه اللازم يستلزم انقسام الملزوم

فهذه هي الأقسام الخمسة الاقترانية واستيفاء البحث في تحقيق إنتاجها في المطولات

[أقسام القياس الاستثنائي]

وأما القياس الاستثنائي فلا يخلو من أن يكون شرطية متصلة أو منفصلة حقيقية أو مانعة الجمع أو مانعة الخلو

فالمتصلة ينتج بوضع المقدم وضع التالي وبرفع التالي رفع المقدم اثنان

والحقيقية بوضع كل من الجزئين رفع الآخر وبرفع كل واحد منهما وضع الآخر أربعة

ومانعة الجمع بوضع كل واحد منهما رفع الآخر فقط اثنان

و مانعة الخلو برفع كل منهما وضع الآخر فقط اثنان

فصار مجموع المنتجات عشرة والعقيمة ستة اثنان في المتصلة واثنان في مانعة الجمع واثنان في مانعة الخلو

[القياس الاستثنائي المشتمل على شرطية متصلة موجبة لزومية]

هذا هو الكلام الكلي وإلى بعض ما ذكرناه أشار بقوله

﴿وأما القياس الاستثنائي فالشرطية الموضوعة فيه إن كانت متصلة﴾ موجبة لزومية ﴿فاستثناء عين المقدم ينتج عين التالي﴾ كقولنا «إن كان هذا إنسانا فهو حيوان لكنه إنسان» ينتج «أنه حيوان» لأن وجود الملزوم يستلزم وجود اللازم

﴿واستثناء نقيض التالي ينتج نقيض المقدم﴾ كقولنا «إن كان هذا إنسانا فهو حيوان لكنه ليس بحيوان» ينتج «إنه ليس بإنسان» لأن عدم اللازم يستلزم عدم الملزوم ولا ينتج استثناء عين التالي ولا استثناء نقيض المقدم شيئا

فالاستثناء أعم من الوضع ويسمى **استثناء العين** ومن الرفع ويسمى **استثناء النقيض**

[اعتراض على الملازمة المساوية وجوابه]

* **فإن قلت هذا صحيح فيما إذا كانت الملازمة عامة أما إذا كانت مساوية فاستثناء عين كل ينتج عين الآخر واستثناء نقيض كل ينتج نقيض الآخر كما قال في الفصول إن الحكم قطعي في الصور الأربع**

وكلية الكبرى[٣٠] أسقطت أربعة أخرى حاصلة من ضرب الكبريتين الجزئيتين في الصغريتين الموجبتين فبقي أربعة أضرب

[أمثال الضروب الأربعة]

﴿الضرب الأول﴾ موجبتان كليتان ينتج موجبة كلية ﴿كقولنا كل جسم مؤلف وكل مؤلف محدث فكل جسم محدث﴾

﴿والثاني﴾ كليتان والكبرى سالبة كلية ينتج سالبة كلية كقولنا ﴿كل جسم مؤلف ولا شيء من المؤلف بقديم فلا شيء من الجسم بقديم﴾

﴿والثالث﴾ موجبتان والصغرى جزئية ينتج موجبة ﴿كقولنا بعض الجسم مؤلف وكل مؤلف حادث فبعض الجسم حادث﴾

﴿والرابع﴾ موجبة جزئية صغرى وسالبة كلية كبرى ينتج سالبة جزئية ﴿كقولنا بعض الجسم مؤلف ولا شيء من المؤلف بقديم فبعض الجسم ليس بقديم﴾

وإنما رتب هذا الترتيب باعتبار النتيجة فالضرب الأول ينتج أشرف المحصورات وهي الموجبة الكلية لاشتمالها على الشرفين الإيجاب والكلية والثاني ينتج السالبة الكلية وهي أشرف من الموجبة الجزئية لأن شرف الكلية لكونه من وجوه متعددة ككونه[٣١] شاملا ومضبوطا ونافعا في العلوم أزيد من شرف الموجبة الجزئية والثالث ينتج الموجبة الجزئية وهي أشرف من السالبة الجزئية لأن فيه شرفا واحدا وهو الإيجاب وليس في نتيجة الرابع شيء من الشرفين

[أقسام القياس الاقتراني]

﴿والقياس الاقتراني﴾ خمسة أقسام من وجه آخر لأنه ﴿إما مركب من حمليتين كما مر﴾ من غير مرة ﴿وإما من متصلتين كقولنا إن كانت الشمس طالعة فالنهار موجود وكلما كان النهار موجودا فالأرض مضيئة ينتج إن كانت الشمس طالعة فالأرض مضيئة﴾ لأن ملزوم الملزوم ملزوم

﴿وإما من منفصلتين كقولنا كل عدد فهو إما زوج أو فرد وكل زوج فهو إما زوج الزوج أو زوج الفرد﴾ لأنه إما أن ينقسم إلى متساويين أو لا ﴿ينتج كل عدد فهو إما فرد أو زوج الزوج أو زوج الفرد﴾ لأن الصادق من المنفصلة الأولى إن كانت الفردية فهي إحدى أقسام النتيجة وإن كانت الزوجية وهي منحصرة في قسمين كان الصادق أحد قسميها المذكورين في النتيجة أيضا فتصدق النتيجة المركبة من الأقسام الثلاثة قطعا

﴿وإما من حملية ومتصلة كقولنا كلما كان هذا إنسانا فهو حيوان وكل حيوان جسم ينتج كلما كان هذا إنسانا فهو جسم﴾ لأن الصادق على كل ما صدق عليه اللازم صادق على الملزوم قطعا

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٣٠. في (ع) و (س) دون (ه) (غ) (ك): وشروط إنتاجه إيجاب الصغرى وكلية الكبرى. وكذلك في (ت) بين معقوفتين.
٣١. هكذا في (ه) (ك) (س) (غ). وفي (ت): لكونه.

الكيف اختلاف المقدمتين بالإيجاب والسلب والكم كلية الكبرى وللثالث بحسب الكيف إيجاب الصغرى والكم كلية إحدى المقدمتين وللرابع بحسب الكيف والكم إيجاب المقدمتين مع كلية الصغرى أو اختلاف مقدمتيه بالإيجاب والسلب مع كلية إحداهما

والبراهين في المطولات

[الأشكال فيما يتعلق بالإنتاج]

[إنتاج الشكل الأول]

﴿والشكل الرابع منها بعيد عن الطبع جدا﴾ لمخالفته الأول القريب من الطبع الوارد على النظم الطبيعي في كلتا المقدمتين

﴿والذي له عقل سليم وطبع مستقيم لا يحتاج إلى رد الثاني إلى الأول﴾ لأنه لغاية قربه من الأول ينقاد باستقامة الطبع للنتيجة من غير طلب رده الى الأول بخلاف الثالث والرابع فإنهما بعيدان عن الأول بالنسبة إليه

[يرد كل شكل إلى الأول]

ولا شك أن مجموع الأشكال ترد في الحقيقة إلى الأول بل إلى أول الأول بل ترد إلى الضروري عن أول الأول كما علم في المطولات وكذا القياس الاستثنائي إلى الاقتراني وبالعكس

[إنتاج الشكل الثاني]

﴿وإنما ينتج الثاني عند اختلاف مقدمتيه بالإيجاب والسلب﴾ إذ لو اتفقتا فيهما لزم الاختلاف الموجب لعدم الإنتاج وهو صدق القياس الوارد على صورة تارة مع إيجاب النتيجة والأخرى مع سلبها وهو يدل على أن النتيجة ليست لازمة لذاته لاستحالة اختلاف مقتضى الذات أما عند إيجاب المقدمتين فكقولنا «كل إنسان حيوان وكل ناطق أو كل فرس حيوان» وأما عند سلبهما فكقولنا «لا شيء من الإنسان بحجر ولا شيء من الفرس أو من الناطق بحجر»

[ضروب الشكل الأول وأمثالها وترتيبها]

﴿والشكل الأول هو الذي جعل معيارا للعلوم﴾ أي ميزانها والعيار الوزن ﴿فنورده هنا ليجعل دستورا﴾ أي مرجعا يكتفى به ﴿ويستنتج منه المطلوب وضروبه المنتجة أربعة﴾

والقياس يقتضي ستة عشر ضربا حاصلة من ضرب الصغريات المحصورات الأربع في الكبريات كذلك غير أن إيجاب الصغرى أسقط ثمانية حاصلة من ضرب السالبتين الصغريتين في الكبريات الأربع

[أشكال القياس]

[الشكل الأول]

﴿والأشكال أربعة لأن الحد الأوسط إن كان محمولا في الصغرى وموضوعا في الكبرى فهو الشكل الأول﴾ لأنه بديهي الإنتاج وارد على نظم الطبيعة[٢٩] فإن الطبيعة مجبولة على الانتقال من الشيء إلى الواسطة التي يقتضي حكمه حكم المطلوب

[الشكل الرابع]

﴿وإن كان بالعكس﴾ أي موضوعا في الصغرى ومحمولا في الكبرى ﴿فهو﴾ الشكل ﴿الرابع﴾ كقولنا «كل إنسان حيوان وكل ناطق إنسان فبعض الحيوان ناطق»

[الشكل الثالث]

﴿وإن كان موضوعا فيهما فهو﴾ الشكل ﴿الثالث﴾ كقولنا «كل إنسان حيوان وكل إنسان ناطق فبعض الحيوان ناطق»

[الشكل الثاني]

﴿أو محمولا فيهما فهو﴾ الشكل ﴿الثاني﴾ كقولنا «كل إنسان حيوان ولا شيء من الفرس بحيوان فلا شيء من الإنسان بفرس»

وإنما كان هذا ثانيا وما قبله ثالثا لأن هذا يشارك الأول في أشرف مقدمتيه وهي الصغرى لاشتمالها على موضوع المطلوب وذلك يشاركه في أخس مقدمتيه وهي الكبرى بخلاف الرابع إذ لا شركة له أصلا مع الشكل الأول

﴿فهذه هي الأشكال الأربعة المذكورة في المنطق﴾

[الأشكال بحسب الإنتاج والاشتراط]

والفرق بينهما بحسب الماهية والشرف قد مر

وبحسب الإنتاج أن الأول ينتج المطالب الأربعة الكليتين الموجبة والسالبة والجزئيتين الموجبة والسالبة والثاني ينتج السالبتين لا الموجبة والثالث والرابع ينتجان الجزئيتين لا الكليتين

[الشروط للإنتاج]

وبحسب الاشتراط فللأول بحسب الكيف إيجاب الصغرى والكم كلية الكبرى وللثاني بحسب

٢٩. في (ه) و (ك): على نظم الطبيعة. في (ت): على قضية الطبع.

[جواب الاعتراض]

قلت لا نسلم فإنها لا تسمى أقوالا بل قولا واحدا مركبا من أقوال كذا أجابوا

[نوعا القياس]

[الاقتراني]

﴿وهو﴾ أي القياس قسمان لأنه ﴿إما اقتراني﴾ إن لم تكن النتيجة أو نقيضها مذكورة فيه بالفعل صورة كقولنا ﴿كل جسم مؤلف وكل مؤلف محدث فكل جسم محدث﴾ وهو ليس بمذكور[٢٨] في القياس بالفعل لا نفسه ولا نقيضه بل بالقوة لذكر مادته دون صورته

[الاستثنائي]

﴿وإما استثنائي﴾ إن كانت النتيجة أو نقيضها مذكورة فيه بالفعل ﴿كقولنا إن كانت الشمس طالعة فالنهار موجود لكن الشمس طالعة فـ﴾ النتيجة وهي ﴿النهار موجود﴾ مذكورة فيه بالفعل أي بصورتها أو نقول ﴿لكن النهار ليس بموجود فالشمس ليست بطالعة﴾ فنقيض النتيجة أي الشمس طالعة مذكورة فيه بالفعل

[تعريف القياس الاقتراني والمصطلحات التي تتعلق بها وبأجزائها]

ولما فرغ من تعريف القياس وتقسيمه إلى قسمين شرع في تقسيم كل واحد من القسمين وأحكامه

فالقياس الاقتراني مشتمل على حدود ثلاثة موضوع المطلوب ومحموله والمكرر بينهما في المقدمتين ففال ﴿والمكرر بين مقدمتي القياس فصاعدا يسمى حدا أوسط﴾ لتوسطه بين طرفي المطلوب كالمؤلف في المثال المذكور ﴿وموضوع المطلوب يسمى حدا أصغر﴾ لأنه في الغالب أقل أفرادا من المحمول فيكون أصغر ﴿ومحموله يسمى حدا أكبر﴾ لأنه في الغالب أكثر أفرادا

[المقدمات وأشكالها]

﴿والمقدمة التي فيها الأصغر تسمى صغرى﴾ لأنها ذات الأصغر وصاحبته ﴿والتي فيها الأكبر تسمى كبرى﴾ لأنها ذات الأكبر ومشتملة عليه ﴿وهيئة التأليف من الصغرى والكبرى تسمى شكلا﴾ تشبيها لها بالهيئة الجسمية الحاصلة من إحاطة الحد الواحد أو الحدود بالمقدار

٢٨. هكذا في (ت) و (ه). في (ك) نسب ليس بمذكور إلى الفناري.

[الفصل الثاني: شرط التزام (لزم عن) فصل ثان من حيثية أخرى]

﴿لزم﴾ يخرج الاستقراء الغير التام والتمثيل فإنهما وإن سلما لكن لا يستلزمان المقصود[٢١] لكونهما ظنيين

[الفصل الثالث: (عنها) فصل ثالث من حيثية أخرى]

وقوله ﴿عنها﴾ يخرج المقدمتين المستلزمتين لإحداهما فإنها لا تلزم عنهما إذ ليس للأخرى دخل فيها

[القيد: (لذاتها)]

﴿لذاتها﴾ احتراز عن مثل قياس المساواة فإن استلزامها بواسطة مقدمة أجنبية[٢٢] حيث تصدق يتحقق الاستلزام كما في المساواة والظرفية وحيث لا تصدق فلا يتحقق كما في النصفية والربعية وغيرهما وأيضا احتراز عن مثل قولنا «جزء الجوهر ما يوجب ارتفاعه ارتفاع الجوهر وكل ما ليس بجوهر لا يوجب ارتفاعه ارتفاع الجوهر» المنتج لقولنا «جزء الجوهر جوهر» فإنه بواسطة عكس نقيض الكبرى أعني قولنا «كل ما يوجب ارتفاعه ارتفاع الجوهر فهو جوهر»

[القيد: (قول آخر)]

﴿قول آخر﴾ هو النتيجة ومعنى آخريتها أن لا تكون[٢٣] عين[٢٤] إحدى مقدمتي القياس الاقتراني من الصغرى و الكبرى أو الاستثنائي من الشرطية والرافعة أو[٢٥] الواضعة

وأما أن لا تكون جزءا من إحدى المقدمتين فغير ملتزم وإنما شرط الآخرية إذ لولاها لكان إما هذيانا أو مصادرة على المطلوب مشتملة[٢٦] على الدور المهروب عنه

[اعتراض على تعريف (القضية المركبة)]

* **فإن قلت القضية المركبة المستلزمة لعكسها وعكس نقيضها يصدق عليها التعريف ولا[٢٧] يسمى قياسا**

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٢١. في (ه) و (ت) نسب المقصود إلى الفناري، لا في (ك).
٢٢. هكذا في (ه) و (ك). في (ت): غريبة.
٢٣. هكذا في (ت) (ه) (غ). في (ك): يكون
٢٤. هكذا في (ه) و (غ) دون (ت) و (ك).
٢٥. (غ): الشرطية و الرافعة أو الواضعة. (ت): الشرطية أو الرافعة أو الواضعة. (ك): الشرطية أو الرافعة والواضعة. (ه): الشرطية أو الرافعة أو الواضعة.
٢٦. هكذا في (ك) و (ه). في (ت): مستلزمة.
٢٧. هكذا في (ت) و (ه) دون (ك).

صدق الأصل فيه وليس كذلك ﴿لأنه يصدق بعض الحيوان ليس بإنسان ولا يصدق عكسه﴾ أي «بعض الإنسان ليس بحيوان» وإنما قال لزوما لجواز صدق عكسه أحيانا بخصوص المادة نحو صدق «بعض الحجر ليس بإنسان» و«بعض الإنسان ليس بحجر»

[عكس النقيض]

واعلم أنه إنما لم يذكر المصنف عكس النقيض مع أنه من جملة أحكام القضايا لعدم استعماله في العلوم والإنتاجات كما سيجيء من أن الإنتاج بواسطة عكس نقيض القضية لا يسمى قياسا بخلاف الإنتاج بالعكس المستوي لرعاية حدود القضية فيه

[اعتراض على عدم ذكر عكس النقيض في المتن]

* **فإن قلت إذا كان كذلك فلم ذكروه في المطولات وطولوا أحكامه تطويلا يكاد يمتنع عن الإحاطة والضبط**

[جواب الاعتراض]

قلت لأن له فائدة في بيان صدق القضية بواسطة صدق عكس نقيضها كذا قالوا مع أن الشيخ كثيرا ما يستنتج بعكس النقيض في كتبه الحكمية كما لا يخفى على متتبعيه ومبتغيه

[مقاصد التصديقات: القياس]

﴿الباب الرابع في مقاصد التصديقات﴾ وهو باب القياس في تعريفه وتقسيمه

[الجنس: (قول مؤلف)]

﴿القياس هو قول﴾ جنس

[الفصل الأول: (مؤلف من أقوال) صفة وفصل أول من حيثية واحدة]

﴿مؤلف من أقوال﴾ يخرج القول الواحد كالقضية البسيطة المستلزمة لعكسها مثلا والمراد بالأقوال ما فوق الواحد ضرورة صحة تأليف القياس من المقدمتين[٢٠]

[القيد: (متى سلمت)]

﴿متى سلمت﴾ صفة (أقوال) إشارة إلى كونها مسلمة في نفس الأمر ليس بشرط لتسميتها قياسا فيتناول التعريف القياس الكاذب المقدمات أيضا

٢٠. هكذا في (ت) و (ه). وليس في (ك): ضرورة صحة تأليف القياس من المقدمتين.

وأما الثاني فمعناه إن صدق الأصل صدق العكس وإن كذب العكس كذب الأصل كما هو شأن اللزوم[١٧] لا إن كذب الأصل كذب العكس كما فهم أو نقول معناه أن مجموع التصديق والتكذيب يكون بحاله لا أن كلا منهما يكون بحاله وكون المجموع بحاله يراد به كون التصديق بحاله إطلاقا للفظ على أحد محتملاته على التعيين

[قواعد الانعكاس فيما يتعلق بالقضايا الكمية (الكلية والجزئية)]

وإذا عرفت مفهوم العكس فيقول

[الموجبة الكلية تنعكس موجبة جزئية]

﴿الموجبة الكلية لا تنعكس كلية﴾ لجواز أن يكون المحمول أعم من الموضوع وعدم جواز حمل الأخص على كل أفراد الأعم ﴿إذ يصدق قولنا كل إنسان حيوان ولا يصدق﴾ قولنا ﴿كل حيوان إنسان بل تنعكس جزئية﴾ لوجوب ملاقاة عنواني الموضوع والمحمول في الموجبة كلية كانت أو جزئية

وبالملاقاة يصدق الجزئية من الطرفين ﴿لأنا إذا قلنا كل إنسان حيوان يصدق قولنا[١٨] بعض الحيوان إنسان فإنا نجد﴾ الموضوع[١٩] ﴿شيئا معينا موصوفا بالإنسان والحيوان فيكون بعض الحيوان إنسانا﴾

[الموجبة الجزئية تنعكس موجبة جزئية]

﴿والموجبة الجزئية أيضا تنعكس جزئية بهذه الحجة﴾ كما أشرنا

[السالبة الكلية تنعكس سالبة كلية]

﴿والسالبة الكلية تنعكس كلية وذلك بين بنفسه﴾

ولنزده بيانا ونقول إذا صدق سلب المحمول عن كل فرد من أفراد الموضوع صدق سلب الموضوع عن كل فرد من أفراد المحمول إذ لو ثبت الموضوع لشيء من أفراد المحمول حصل الملاقاة بين الموضوع والمحمول في ذلك الفرد وقد مر أن الملاقاة تصحح الموجبة الجزئية من الطرفين وصدق الموجبة الجزئية من الطرفين ينافي السالبة الكلية من أحدهما ﴿فإنه إذا صدق قولنا لا شيء من الإنسان بحجر صدق لا شيء من الحجر بإنسان﴾ وإلا فـ«بعض الحجر إنسان» و«بعض الإنسان حجر» هذا خلف أو نضمها صغرى إلى قولنا «لا شيء من الإنسان بحجر» حتى ينتج «بعض الحجر ليس بحجر» هذا خلف

[السالبة الجزئية لا تنعكس صحيحة]

﴿والسالبة الجزئية لا عكس لها لزوما﴾ إذ لوكان لها عكس لزوما لصدق العكس في كل موضع

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١٧. هكذا في (ه) (ع) (ت). في (ك): الملزوم

١٨. هكذا في (ه) دون قولنا في (ت). وليس يصدق قولنا بعض الحيوان إنسان في (ك) و (ع).

١٩. هكذا في (ه) وليس في (ت). و نسب في (ت) الكلام كله إلى الأبهري. في (ك): هناك شيئا...موصوفا.

والصحيح أن المعتبر في تحقق التناقض **وحدة النسبة الحكمية** حتى يرد الإيجاب والسلب على شيء واحد فإن وحدتها مستلزمة لهذه الوحدات وعدم وحدة الشيء منها مستلزم لعدم وحدة النسبة الحكمية وإلا فلا حصر فيما ذكروه لارتفاع التناقض باختلاف **الآلة** نحو «زيد كاتب» أي بالقلم الواسطي «زيد ليس بكاتب» أي بالقلم التركي **والعلة** نحو «النجار عامل» أي للسلطان «النجار ليس بعامل» أي لغيره **والمفعول به** نحو «زيد ضارب» أي عمرا «زيد ليس بضارب» أي بكرا **والمميز** نحو «عندي عشرون» أي درهما «ليس عندي عشرون» أي دينارا إلى غير ذلك

وبهذا القدر يعرف تناقض المخصوصتين

[تناقض المحصورات]

وأما في المحصورات فنقيض الإيجاب الكلي السلب الجزئي ونقيض السلب الكلي الإيجاب الجزئي ضرورة ولذا قال ﴿ونقيض الموجبة الكلية إنما هي السالبة الجزئية ونقيض السالبة الكلية إنما هي الموجبة الجزئية كقولنا كل إنسان حيوان وبعض الإنسان ليس بحيوان ولا شيء من الإنسان بحيوان وبعض الإنسان حيوان﴾

[اعتراض على اتحاد الموضوع وجواب الاعتراض]

* **لا يقال لا اتحاد للموضوع فيهما**

لأن المراد بالموضوع في تلك لمسألة الموضوع في الذكر وهو متحد

﴿فالمحصورات لا يتحقق التناقض فيها إلا بعد اختلافهما في الكمية لأن الكليتين قد تكذبان كقولنا كل إنسان كاتب ولا شيء من الإنسان بكاتب والجزئيتين قد تصدقان كقولنا بعض الإنسان كاتب وبعض الإنسان ليس بكاتب﴾

واعلم ان المهملة في قوة الجزئية فحكمها حكمها

[العكس]

ومن أحكام القضايا ﴿العكس وهو أن يصير﴾بتشديد الياء لأن العكس يطلق على معنيين على القضية الحاصلة من التبديل المذكور وعلى نفس التبديل فلو لم يشدد صار معنى ثالثا أي يجعل ﴿الموضوع﴾ في الذكر أو ما يقوم مقامه من الشرطية وهو المقدم ﴿محمولا﴾ أو ما يقوم مقامه من الشرطية وهو التالي ﴿والمحمول موضوعا مع بقاء السلب والإيجاب بحاله والتصديق والتكذيب بحاله﴾

[تأويلان]

أما الأول فلأن قولنا «كل إنسان ناطق» لا يلزمه السلب أصلا وقولنا «لا شيء من الإنسان بحجر» لا يلزمه الإيجاب أصلا

[التناقض]

ولما فرغ من القضايا شرع في أحكامها على طريق الاختصار والاقتصار على المطلقات على ما هو دأب الكتاب

[تعريف التناقض]

فقال ﴿التناقض﴾ أي من جملة أحكام القضايا التناقض

[مخرجات بـ(القضيتين)]

﴿وهو اختلاف القضيتين﴾ يخرج اختلاف المفردين كزيد وعمرو ومفرد وقضية

[مخرجات بـ(الإيجاب والسلب)]

﴿بالإيجاب والسلب﴾ يخرج اختلافهما بالحمل والشرط والعدول والتحصيل وغيرها فإن نقيض الشيء سلبه لا عدوله لأن الشيء وعدوله يرتفعان لعدم الإثبات

ولذا يقال لا تناقض في المفردات لأنها مع اعتبار الحكم لا تكون مفردة وبدونه لا تكون سلبا وإيجابا

﴿بحيث يقتضي﴾ ذلك الاختلاف ﴿لذاته أن تكون إحداهما صادقة والأخرى كاذبة﴾ فخرج به الشيئان اللذان لا يقتضي الاختلاف بالإيجاب والسلب فيهما ذلك نحو «كل حيوان إنسان» و«لا شيء من الحيوان بإنسان» أو يقتضي ذلك لكن لا لذاته بل بواسطة نحو «زيد إنسان» و«زيد ليس بناطق» فإن اقتضاء الاختلاف بذلك صدق إحداهما وكذب الأخرى بواسطة مساواة المحمولين المقتضية لأن يكون إيجاب إحداهما في قوة إيجاب الأخرى وسلب إحداهما في قوة سلب الأخرى

[أمثلة التناقض]

﴿كقولنا زيد كاتب زيد ليس بكاتب﴾ هذا مثال التناقض بين المخصوصتين

[ثمانية الشروط لتحقيق التناقض]

﴿ولا يتحقق ذلك﴾ الاختلاف الموصوف ﴿إلا بعد اتفاقهما﴾ أي القضيتين في ثماني وحدات ﴿في الموضوع﴾ بخلاف «زيد قائم» و«عمرو ليس بقائم» ﴿والمحمول﴾ بخلاف «زيد قائم» و«زيد ليس بقاعد» ﴿والزمان﴾ بخلاف «زيد قائم» أي في الليل و«زيد ليس بقائم» أي في النهار ﴿والمكان﴾ بخلاف «زيد قائم» أي في المسجد و«زيد ليس بقائم» أي في السوق ﴿والإضافة﴾ بخلاف «زيد أب» أي لعمرو و«زيد ليس بأب» أي لبكر ﴿والقوة والفعل﴾ بخلاف «الخمر في الدن مسكر» أي بالقوة و«الخمر في الدن ليس بمسكر» أي بالفعل ﴿والجزء والكل﴾ بخلاف «الزنجي أسود» أي بعضه و«الزنجي ليس بأسود» أي كله ﴿والشرط﴾ بخلاف «الجسم مفرق للبصر» أي بشرط بياضه «غير مفرق للبصر» أي بشرط سواده

معانيها اللغوية بل المراد بها معانيها الاصطلاحية فإن كل عدد يزيد المجتمع من كسوره التسعة عليه يسمى زائدا كاثني عشر والناقص ناقصا كالأربعة والمساوي مساويا كالستة هذا في المنفصلة الحقيقية

[مانعة الخلو ومانعة الجمع المركبتان من أكثر من اثنين]

أما مانعة الخلو المركبة من أكثر من اثنين فكقولنا «إما أن يكون هذا الشيء لا حجرا أو لا شجرا أو لا حيوانا» وأما مانعة الجمع فكقولنا «إما أن يكون هذا الشيء شجرا أو حجرا أو حيوانا»

[أسئلة وأجوبة]

[السؤال الأول]

*** فإن قلت لا يتركب شيء من المنفصلات من أكثر من جزئين لأن الانفصال نسبة واحدة والنسبة الواحدة لا تتصور إلا بين جزئين ضرورة أن النسبة بين أمور متكثرة لا تكون واحدة بل تكون متكثرة**

[جواب الفناري]

قلت المراد بتركب المنفصلات من أكثر من جزئين تركبها بحسب الظاهر لا بحسب الحقيقة وإلا فالانفصال الحقيقي في المثال المذكور على الحقيقة بين أن يكون العدد زائدا أو لا يكون ثم على تقدير أن لا يكون زائدا بين كونه ناقصا أو مساويا

[السؤال الثاني (طلب الدليل)]

*** فإن قلت فما وجه حكمهم أن الحقيقية لا تتركب من أكثر من جزئين ومانعة الخلو والجمع يتركبان**

[جواب الفناري]

قلت وجهه أن الحقيقية إذا أريد بها الانفصال الحقيقي بين كل جزئين منها فلا يكاد أن تصدق لأن الأول من أجزائها الثلاثة مثلا إذا تحقق فإن تحقق الثاني أيضا ارتفع الانفصال الحقيقي بينهما وإن لم يتحقق الثاني فإن تحقق الثالث لم يكن بينه وبين الأول انفصال وإن لم يتحقق لم يكن بينه وبين الثاني انفصال

[مانعة الجمع ومانعة الخلو المركبتان من ثلاثة أجزاء]

وأما الأخريان فتصدقان وإن أريد منع الجمع أو منع الخلو بين كل جزئين معينين من أجزائهما كما في المثالين المذكورين

هذا والحق أن المراد بالانفصال إن كان انفصالا واحدا لا يتحقق إلا بين جزئين وإن كان مطلق الانفصال فيتحقق بين الجزئين أو أكثر في الأقسام الثلاثة

[أنواع القضايا المنفصلة]

[تقسيم المنفصلة]

﴿والمنفصلة﴾ ثلاثة أقسام حقيقية ومانعة الجمع فقط ومانعة الخلو فقط لأن العناد ﴿إما﴾

[وجه الحصر]

في الصدق والكذب معا تسمى ﴿حقيقية كقولنا العدد إما زوج أو فرد﴾ فإنهما لا يصدقان ولا يكذبان معا ﴿وهي مانعة الجمع والخلو معا﴾ وهي موجبتها وسالبتها برفع العناد في الصدق والكذب معا كقولنا ﴿ليس ألبتة إما أن يكون هذا الإنسان كاتبا أو تركيا﴾ فإنهما يصدقان ويكذبان معا

﴿وإما﴾ في الصدق فقط وتسمى ﴿مانعة الجمع فقط كقولنا هذا الشيء إما حجر أو شجر﴾ فإنهما لا يصدقان وقد يكذبان بأن يكون إنسانا وسالبتها برفع العناد في الصدق فقط نحو «ليس ألبتة إما أن لا يكون هذا الشيء لا شجرا أو لا حجرا» فإنهما يصدقان ولا يكذبان وإلا لكان حجرا وشجرا معا

﴿وإما﴾ في الكذب فقط وتسمى ﴿مانعة الخلو فقط كقولنا زيد إما أن يكون في البحر وإما أن لا يغرق﴾ فإن الكون في البحر مع عدم الغرق يصدقان ولا يكذبان وإلا لغرق في البر وسالبتها برفع العناد في الكذب فقط نحو «ليس ألبتة زيد إما أن لا يكون في البحر وإما أن يغرق» فإن عدم الكون في البحر مع الغرق يكذبان ولا يصدقان

ومنه يعلم أن كل مادة صدق فيها موجبة منع الجمع كذب فيها سالبته وصدق فيها سالبة منع الخلو وكل مادة صدق فيها موجبة منع الخلو كذب فيها سالبته وصدق فيها سالبة منع الجمع وكذا من جانب سالبتها وأن كل شيئين صدق بين عينيهما منع الجمع صدق بين نقيضيهما منع الخلو وبالعكس لكن هذا بعد الاتفاق في الكيف أي الإيجاب والسلب وأما بعد الاختلاف فيه فالصادق سالبة المتفق في النوع

[أمثلة المنفصلات ذوات ثلاثة أجزاء]

﴿وقد تكون المنفصلات ذوات أجزاء﴾ ثلاثة وأكثر فالثلاثة ﴿كقولنا العدد إما زائد أو ناقص أو مساو﴾ و«الكلمة إما اسم أو فعل أو حرف»

[أمثلة المنفصلات ذوات أكثر من ثلاثة أجزاء]

والأكثر كقولنا «العنصر إما نار أو هواء أو ماء أو أرض» و«الكلي إما نوع أو جنس أو فصل أو خاصة أو عرض عام»

[بيان الأمثلة العددية]

ومثال المتن ليس معناه أن ينسب عدد إلى عدد كما ظن فإن الزيادة والنقصان والمساواة يراد بها حينئذ

والغرض من ذكر الأسوار التمثيل بما فيه الاشتهار في الاستعمال لا الحصر فإن «قاطبة» و«كافة» و«طرا»[١٦] ولام الاستغراق يصح أن يكون سورا للإيجاب الكلي الحملي كما أشار إليه الشيخ في الشفاء

[القضايا المهملة]

﴿وإما أن لا يكون كذلك﴾ أي مخصوصة أو مسورة ﴿تسمى مهملة﴾ لإهمال السور فيها ﴿كقولنا﴾ في الحملية ﴿الإنسان كاتب﴾ وفي الشرطية «إن جاء زيد» أو «إذا جاء زيد فأكرمه» والمهملة في قوة الجزئية لأن الحكم على أفراد الشيء في الجملة مع الحكم على بعض أفراده متلازمان طردا وعكسا وكذا الحكم في زمان منتشر مع الحكم المطلق متلازمان

[أنواع القضايا المتصلة]

﴿والمتصلة﴾ قسمان لأنها

[اللزومية]

﴿إما﴾ أن يكون الحكم بالاتصال فيها مبنيا على الاقتضاء وهي تسمى ﴿لزومية﴾ وذلك إما بأن يكون المقدم علة للتالي ﴿كقولنا إن كانت الشمس طالعة فالنهار موجود﴾ أو بأن يكون التالي علة للمقدم كعكسه أو بأن يكونا معلولي علة واحدة نحو «إن كان النهار موجودا فالعالم مضيء» ومنه **التضايف** بينهما نحو «إن كان زيد أبا عمرو كان عمرو ابنه»

[الاتفاقية]

﴿وإما﴾ أن لا يكون كذلك بل يكون الحكم بالاتصال بمجرد الاتفاق وتسمى ﴿اتفاقية كقولنا إن كان الإنسان ناطقا فالحمار ناهق﴾ فإنه حكم فيها بالاتصال بمجرد الاتفاق بين ناطقية الإنسان وناهقية الحمار لأنهما خلقا كذلك لا أن بينهما اقتضاء

واعلم أن معنى عدم الاقتضاء عدم علم الحاكم بالاقتضاء لا عدمه في نفس الأمر

[اعتراض على دعوى الاتفاق وجوابه]

فلا يرد ما يقال من أنهما لما داما دامت علتهما التامة فامتنع انفكاك أحدهما عن الآخر ولا نعني بالاقتضاء إلا ذلك

[الدائمة أعم من الضرورية]

وبهذا ينحل ما أوردوا على أن الدائمة أعم من الضرورية

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١٦. توجد كلمة طرا في (ه) و (ع) ولا في (ت) و (ك).

[الممخصوصة]

على موضوع مشخص وهي المخصوصة وإما

[المحصورة]

على غيره فإن بين فيها كمية الأفراد كلا كانت أو بعضا بذكر السور أي اللفظ الدال عليها فمحصورة

[المهملة]

وإلا فمهملة

[تقسيم الشرطية باعتبار الاتصال والانفصال]

وأما في الشرطيات فإن كان الحكم فيها بالاتصال والانفصال في زمان معين فمخصوصة وإلا فإن بين فيها كمية الزمان جميعه أو بعضه فمحصورة وإلا فمهملة وفي الجملة الأزمنة والأوضاع في الشرطية بمنزلة أفراد الموضوع في الحملية والأمثلة غير خافية

[اعتراض على التقسيم]

* **فإن قلت التقسيم غير حاصر لعدم ذكر الطبيعية فيه**

[جواب الاعتراض]

قلت مورد القسمة القضية المستعملة في العلوم والإنتاجات وهي التي حكم فيها على جزئيات الموضوع لا على طبيعته كما بين في المطولات

[القضايا المخصوصة والمسورة]

وكل من الموجبة والسالبة ﴿إما مخصوصة كما ذكرنا﴾ من مثاليهما ﴿وإما كلية مسورة كقولنا كل إنسان كاتب ولا شيء﴾ أو لا واحد ﴿من الإنسان بكاتب وإما جزئية مسورة كقولنا بعض الإنسان﴾ أو واحد من الإنسان ﴿كاتب وبعض الإنسان﴾ أو واحد من الإنسان ﴿ليس بكاتب﴾ أو «ليس بعض الإنسان بكاتب» أو «ليس كل إنسان بكاتب»

ومن هذا علم أن السور في الحملية للإيجاب الكلي «كل» وللإيجاب الجزئي «بعض» و«واحد» وللسلب الكلي «لا شيء» و«لا واحد» وللسلب الجزئي «ليس كل» و«ليس بعض» و«بعض ليس»

وليعلم في الشرطيات أيضا أن السور للإيجاب الكلي «دائما» و«كلما» و«متى» و«مهما» وما في معناها وللإيجاب الجزئي «قد يكون» وللسلب الكلي «ليس ألبتة» وللسلب الجزئي «قد لا يكون» و«ليس دائما» و«ليس كلما» و«ليس مهما»

للقضية الملفوظة ومعقولا جنس للقضية المعقولة وباقي القيود فصل يخرج المركبات الإنشائية طلبية كانت أو غيرها والتقييدية لأن صدق القول وكذبه مطابقة حكمه للواقع أو للاعتقاد أو لهما معا وعدمها ولا حكم في الإنشائيات والتقييديات لأن الحكم أداء للواقع في نفس الأمر من طرفي النسبة ماضيا أو حالا أو استقبالا ولا أداء في الإنشائيات والتقييديات

[تقسيم القضايا باعتبار النسبة أو الطرفين: الحملية والشرطية]

﴿وهي إما حملية كقولنا زيد كاتب﴾ أو ليس بكاتب ﴿وإما شرطية﴾ لأن القضية لا بد فيها من إيقاع النسبة الحكمية أو انتزاعها فالنسبة إن كانت بثبوت مفهوم لمفهوم فالقضية القائلة بإيقاعها أو سلبها حملية وإن كانت بثبوت مفهوم عند ثبوت مفهوم آخر أو ثبوت مباينة[١٥] مفهوم لمفهوم آخر فالقضية القائلة بإيقاعها أو انتزاعها شرطية

ومن هذا يعرف أن الشرطية أيضا إما ﴿متصلة كقولنا إن كانت الشمس طالعة فالنهار موجود﴾ فإنه حكم فيها بأن وجود النهار عند طلوع الشمس واقع وكقولنا ليس إن كانت الشمس طالعة فالليل موجود فإنه حكم فيها بأن وجود الليل عند طلوع الشمس غير واقع ﴿وإما شرطية منفصلة كقولنا العدد إما زوج أو فرد﴾ فإنه حكم فيها بأن مباينة فردية العدد لزوجيته واقعة وكقولنا «ليس إما أن يكون العدد زوجا أو منقسما بمتساويين» فإنه حكم فيها بأن متباينة الانقسام بمتساويين للزوجية غير واقعة

[أجزاء الحملية والشرطية]

﴿والجزء الأول من الحملية يسمى موضوعا﴾ لأنه وضع ليحمل عليه شيء ﴿والثاني محمولا﴾ لحمله على الأول ﴿والجزء الأول من الشرطية﴾ أي شرطية كانت ﴿يسمى مقدما﴾ لتقدمه في الذكر طبعا وإن تأخر وضعا ﴿والثاني تاليا﴾ لتلوه لذلك

[الكيف]

﴿و﴾ مما مر علم أن ﴿القضية﴾ حملية كانت أو شرطية متصلة أو منفصلة ﴿إما موجبة﴾ إن كان الحكم فيها بالإيقاع ﴿كقولنا﴾ في الحملية ﴿زيد كاتب وإما سالبة﴾ إن كان الحكم فيها بالانتزاع ﴿كقولنا﴾ فيها ﴿زيد ليس بكاتب﴾ وأمثلة الشرطيات قد تقدمت

[الكم]

﴿وكل واحدة منهما﴾ أي الموجبة والسالبة إما مخصوصة أو محصورة أو مهملة والمحصورة إما كلية أو جزئية ففي القضايا مخصوصتان ومهملتان ومحصورات أربع وذلك لأن الحكم في كل من الموجبة والسالبة إما

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١٥. في (ك): معاندة

[اعتراض على المثال برسم الإنسان]

* ولا يرد ما يقال من أن في بعضها غنية عن البعض

[جواب الاعتراض]

فإن ذلك غير ملتزم والغرض التمثيل

[تأويل تعريف الرسم]

وأما التعريف بالضاحك فقط فإن أريد به الحيوان الضاحك فرسم تام وإن أريد به الشيء الذي له الضحك فمن هذا القبيل وأما إن أريد[١٤] به الجسم الضاحك فقد ذكروا أنه أيضا أعني المركب من الجنس البعيد والخاصة رسم ناقص مع أن ما ذكره ليس شاملا له فلا بد من التأويل إما بأن يقال إنه من باب التغليب أو من إطلاق اسم الكل على الجزء فإن المجموع المركب من الذاتي والعرضي عرضي أو يقال ذكر ما هو الغالب في الوقوع

[اعتراض على الرسم المركب من العرض العام والخاصة]

* فإن قلت الشيء الضاحك مركب من العرض العام والخاصة فلا فائدة فيه لأن العرض العام لا يفيد التمييز ولا الاطلاع على الذاتي والتعريف لإحدى الفائدتين ومثله التعريف بالفصل والخاصة

[جواب الاعتراض]

قلت قد قيل ذلك إن حقا وإن كذبا أما الحق الحقيق بالقبول فإن التصور مع العرض العام والخاصة أقوى من التصور مع مجرد الخاصة وكذا التصور مع الفصل والخاصة أقوى من التصور مع مجرد الفصل فكيف لا يكون لهما أي العرض العام والخاصة فائدة

[الضابط في تقسيم المعرفات]

فالضبط أن التعريف بمجرد الذاتيات بمجموعها حد تام وببعضها حد ناقص والتعريف لا بمجرد الذاتيات فبالجنس القريب والخاصة رسم تام وبغيره رسم ناقص فعلى هذا العرض العام مع الفصل أو الخاصة والخاصة مع الفصل والجنس البعيد مع الخاصة كل منها رسم ناقص

[الباب الثالث: مبادئ التصديقات: القضايا وأحكامها]

﴿الباب الثالث في مبادئ التصديقات﴾ وهي ﴿القضايا﴾ وأحكامها

﴿القضية قول يصح أن يقال لقائله إنه صادق فيه أو كاذب فيه﴾ فالقول وهو المركب ملفوظا جنس

١٤. في (ك): وأما إن لم يرد به ذلك بل أريد به...

إما بأن التسلسل غير لازم لأن معرف المعرف من حيث هو هو غير محتاج إلى معرف آخر إما لبداهة أجزائه أو لكونه معلومة فكما أنه من حيث هو غير محتاج إلى معرف آخر كذلك لا يحتاج إليه من حيث هو معرف لكونه معلوما باعتبار عارض وهو صدق مطلق المعرف المحدود عليه وقد عرفت أن الخاص يقع معرفا باعتبار غير اعتبار خصوصيته

وإما بأن التسلسل في الأمور اعتبارية لانقطاعه بانقطاع الاعتبار غير محال

[تقسيم القول الشارح]

فعلم أن القول الشارح إما **حد** أو **رسم** لأنه إن كان بمجرد الذاتيات فحد وإلا فرسم

[تعريف الحد وتقسيمه]

فعرف ﴿الحد﴾ بأنه ﴿قول دال على﴾ كنه ﴿ماهية الشيء﴾ وهو إن كان تعريفا بمجموع الذاتيات فحد تام وإن كان ببعضها فناقص

فكونه حدا لأنه مانع عن دخول الأغيار فيه والحد في اللغة المنع

وتمامه ونقصانه باعتبار الذاتيات فالحد التام ﴿وهو الذي يتركب من جنس الشيء وفصله القريبين كالحيوان الناطق بالنسبة إلى الإنسان﴾ ولذا قال ﴿وهو الحد التام والحد الناقص وهو الذى يتركب من جنس الشيء البعيد وفصله القريب كالجسم الناطق بالنسبة إلى الإنسان﴾

وإنما لم يقل (أو بفصله فقط) كالناطق في تعريف الإنسان على ما قالوا لأن الناطق مركب معنى والاعتبار للمعاني فإن كان معناه جسما أو جوهرا له النطق ونحوه كان كالجسم الناطق بعينه وإن كان معناه شيئا له النطق ونحوه لم يكن حدا لأن الشيئية عارضة

[تعريف الرسم وتقسيمه]

﴿والرسم﴾ أيضا قسمان تام وناقص لأن المذكور فيه إن كان جنسا قريبا مقيدا بما يخصصه فتام لكونه أثرا يسمى رسما لكونه مشابها بالحد التام في ذلك يسمى تاما وإن لم يكن كذلك فناقص لنقصانه عن تلك التمامية

فالرسم ﴿التام هو الذي يتركب من جنس الشيء القريب وخواصه اللازمة كالحيوان الضاحك في تعريف الإنسان﴾

﴿والرسم الناقص وهو الذي يتركب من عرضيات تختص جملتها بحقيقة واحدة﴾ سواء لم يختص شيء من آحادها أو اختصت الواحدة الأخيرة ﴿كقولنا في تعريف الإنسان إنه ماش على قدميه﴾ يخرج الماشي على الأقدام الأربعة ﴿عريض الأظفار﴾ يخرج مدور الأظفار كالطيور ﴿بادي البشرة﴾ يخرج مستور البشرة بالشعر ﴿مستقيم القامة﴾ يخرج منحني القامة فكل من الأوصاف الأربعة يوجد في غير الإنسان فلما قال ﴿ضحاك بالطبع﴾ خرج غيره

[الباب الثاني: مقاصد التصورات]

﴿الباب الثاني في مقاصد التصورات﴾ وهو باب ﴿القول الشارح﴾ ويرادفه **المعرف**

[لم يسمى (قولا)؟]

ويسمى قولا لأن القول هو المركب والمعرف مركب كليا عند قوم وغالبا عند آخرين

والصحيح هو الأول لا[١٣] لأن المعرف من أقسام **النظر** الذي هو ترتيب أمور معلومة فإن كون النظر ترتيب أمور مبني على عدم صحة التعريف بالمفرد فلو كان ذلك مبنيا على هذا لزم الدور ولهذا عرف بعضهم النظر بتحصيل أمر أو ترتيب أمور بل لأن المعرف لا بد فيه من تصور ثبوت شيء لشيء فيكون مركبا وهذا معنى قولهم لا بد فيه من قرينة عقلية مصححة للانتقال ولهذا قالوا معنى الناطق شيء له النطق ومعنى الضاحك شيء له الضحك

[لم يسمى (شارحا)؟]

وإنما سمي شارحا لشرحه الماهية إما بكنهها وهو **الحد** أو بوجه تميزها عما عداها وهو **الرسم**

[تعريف المعرف]

فالمعرف ما يكون تصوره سببا لاكتساب تصور الشيء إما بكنهه أو بوجه يميزه عما عداه

[مخرجات بتعريف المعرف]

فقولنا (تصوره) يخرج التصديقات وقولنا (لاكتساب) يخرج الملزوم بالنسبة إلى لوازمه البينة وقولنا (إما) و(أو) ليشمل الحد والرسم

والتقسيم المحدود لا للحد وعلامته كون الانفصال لمنع الخلو كذا المروي عن شمس الأئمة الأصفهاني

[اعتراض على تعريف المعرف]

* **قيل لا يجوز تعريف المعرف لأنه لو كان للمعرف معرف لزم التسلسل**

لا يجاب عنه بأن معرف المعرف عينه كوجود الوجود لأن العينية ممنوعة

[جواب الاعتراض]

بل يجاب

١٣. في (ت) بدون لا.

به الخاصة

[تقسيم العرضي]

﴿وأما العرضي فـ﴾ قسمان **خاصة وعرض عام** لأنه إن اختص بحقيقة واحدة فخاصة وإن اشتمل على الحقائق فعرض عام

وباعتبار هذا التقسيم صارت الكليات خمسا وإن اندرج فيه تقسيم آخر على ما قال المصنف

[العرض اللازم والمفارق]

﴿فإما أن يمتنع انفكاكه عن الماهية﴾ سواء امتنع انفكاكه عن الماهية من حيث هي هي كالفردية للثلاثة أو عن الماهية الموجودة كالسواد للحبشي ﴿وهو العرض اللازم﴾ فالأول لازم الماهية والثاني لازم الوجود

﴿أو لا يمتنع﴾ انفكاكه عن الماهية ﴿وهو العرض المفارق﴾ لإمكان مفارقته سواء وقعت بالفعل سريعا كحمرة الخجل وصفرة الوجل أو بطيئا كالشباب أو لم تقع أصلا كالفقر الدائم لمن يمكن غناؤه

[تعريف الخاصة]

﴿وكل واحد منهما﴾ أي من اللازم والمفارق ﴿إما أن تختص بحقيقة واحدة وهو الخاصة﴾ فاللازم الخاصة ﴿كالضاحك بالقوة و﴾ المفارق الخاصة كالضاحك ﴿بالفعل للإنسان﴾

﴿وترسم﴾ الخاصة ﴿بأنها كلية تقال على ما تحت حقيقة واحدة فقط﴾

[مخرجات بتعريف الخاصة]

خرج به غير النوع والفصل القريب وخرجا بقوله ﴿قولا عرضيا﴾

[تعريف العرض العام]

﴿وإما أن يعم﴾ كل من اللازم والمفارق ﴿حقائق فوق واحدة وهو العرض العام كالمتنفس بالقوة﴾ مثال للازم العرض العام ﴿وبالفعل﴾ مثال لمفارق العرض العام وقوله ﴿للإنسان وغيره من الحيوانات﴾ متعلق بهما وبيان لعمومهما

﴿ويرسم بأنه كلي يقال على ما تحت حقائق مختلفة﴾

[مخرجات بتعريف العرض العام]

يخرج به غير الجنس والفصل البعيد وخرجا بقوله ﴿قولا عرضيا﴾

[اعتراض على تعريف النوع]

* **فإن قلت الجنس وأمثاله يقال على كثيرين مختلفين بالعدد أيضا كالحيوان في جواب ما زيد وعمرو وهذا الفرس وذاك الفرس فكيف يحترز عنهما**

[جواب الاعتراض]

قلت هذا إن ورد فإنما يرد على من يحترز عنها بوصف الكثيرين بالمتفقين بالحقيقة أما ههنا فلما نفى الاختلاف بالحقيقة بقوله (دون الحقيقة) صح الاحتراز عنهما لأن الحيوان مثلا لا يصح أن يقع جوابا إلا إذا اشتمل السؤال على مختلفين بالحقيقة وإن اشتمل معها على المتفقين أيضا على أن وروده عليه في حيز المنع أيضا فإن صحة الجواب بالجنس ناظر ة إلى اشتمال السؤال على الحقيقتين المختلفتين وإلى جعل المتفقين في حكم الواحدة

[تعريف الفصل]

﴿وإما غير مقول في جواب ما هو بل مقول في جواب أي شيء هو في ذاته﴾ فإن السؤال بأي شيء هو إنما هو عن المميز فإن قيد بقوله (في ذاته) فعن المميز الذاتي وإن قيد بقوله (في عرضه) فعن المميز العرضي وإن أطلق فعن المميز المطلق

ولذا قال ﴿وهو الذي يميز الشيء عما يشاركه في الجنس كالناطق بالنسبة إلى الإنسان﴾ تنبيها على أن كل ماهية لها فصل فلها جنس ألبتة وهو المذكور في الشفاء

وأما المتأخرون فاختاروا المذكور في الإشارات وهو أن الفصل أعم من أن يميز الشيء عن المشاركات الجنسية أو المشاركات الوجودية وهذا الخلاف مبني على امتناع تركب الماهية من أمرين متساوين عند المتقدمين وجوازه عند المتأخرين فكأن المصنف اختار مذهب المتقدمين ولم يذكره في حده اكتفاء بما قبله وأشار في الموضعين إلى المذهبين

﴿وهو الفصل﴾

[تقسيم الفصل إلى القريب البعيد]

القريب إن ميزه عن المشاركات في الجنس القريب الذي يصح جوابا عن الماهية وجميع المشاركات في ذلك الجنس كالناطق والحيوان والبعيد إن ميزه عن المشاركات في الجنس البعيد الذي لا يصح جوابا عن الماهية وجميع مشاركاتها في ذلك الجنس كالحساس والنامي

[مخرجات بتعريف الفصل]

﴿ويرسم بأنه كلي يقال على الشيء في جواب أي شيء هو﴾ يخرج الجنس والنوع لعدم مقوليتهما في جواب أي شيء بل في جواب ما هو والعرض العام لعدم مقوليته في الجواب أصلا ﴿في ذاته﴾ يخرج

[مكان (المقولية) في تعريف الجنس]

أما المقولية وكونه صالحا لها فمما يعرض له بعد تقومه كذا في شرح الإشارات فلا يلتفت إلى ما يقال من أنها حدود لكونها أمورا اعتبارية

[اعتراض على تعريف الجنس]

* **فإن قلت جنس الجنس أخص من مطلق الجنس ولا يجوز تعريف العام بأحد خواصه**

قلت إن أريد به عدم الجواز عند اتحاد اعتبارَيْ معرفيته وخصوصيته فمسلم لكنه غير مفيد

[الجواب الأول: معرفية الكلي أعم من الجنس]

وإن أريد به مطلقا فممنوع وذلك لأن الكلي بمفهومه معرف وأعم من مطلق الجنس

[الجواب الثاني: عارضية الكلي أخص من الجنس المطلق]

وباعتبار عارض هو كونه جنسا للجنس أخص منه وغير معرف فالأمران جائزان في شيء واحد[١٢] بالاعتبارين المتغايرين

[تعريف النوع]

﴿وإما مقول في جواب ما هو بحسب الشركة والخصوصية معا كالإنسان بالنسبة إلى زيد وعمرو﴾ أي يكون جوابا عن السؤال عن فرد خاص وعن فردين فالإنسان جواب لقولنا ما زيد ولقولنا ما زيد وعمرو لأنه تمام الحقيقة لكل فرد من الأفراد المختلفة بالعوارض المشخصة ﴿وهو﴾ أي ذلك المقول ﴿النوع﴾

﴿ويرسم بأنه كلي مقول على كثيرين مختلفين بالعدد دون الحقيقة في جواب ما هو﴾ فذكر (الكلي) و(المقول على كثيرين) ليس بمستدرك كما مر

[مخرجات بتعريف النوع]

وقوله (مختلفين بالعدد دون الحقيقة) احتراز عن الجنس وخاصته والعرض العام والفصل البعيد وتخصيصه بالاحتراز عن الجنس تحكم

وقوله (في جواب ما هو) احتراز عن الفصل القريب وخاصة النوع فإنهما مقولان في جواب أي شيء هو في ذاته أو في عرضه

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١٢. في (ت). في (ه) و (ك) بدون في شيء واحد

[جواب الاعتراض]

وأقول الذات كما يطلق على نفس الحقيقة يطلق على ما صدق عليه الحقيقة فربما يراد بالذات ههنا المعنى الثاني فيمكن نسبة نفس الحقيقة إلى ما صدق عليه كما يمكن نسبة جزئيها[٨] إليه

[تقسيم الذاتي]

﴿والذاتي﴾ قد سبق بيان ما هو المراد منه وهو أقسام ثلاثة لأنه إما مقول في جواب ما هو أو في جواب أي شيء هو في ذاته وهو الفصل

[تعريف الجنس]

والمقول في جواب ما هو إما بحسب الشركة فقط وهو **الجنس** أو بحسب الشركة والخصوصية معا وهو **النوع** ولذا قال ﴿إما مقول في جواب ما هو بحسب الشركة﴾ فقط[٩] ﴿كالحيوان بالنسبة إلى الإنسان والفرس﴾ فإن الحيوان جواب لقولنا ما الإنسان والفرس لا لقولنا ما الإنسان لأن السائل إنما يسأل عن تمام الحقيقة وليس الحيوان تمام حقيقة الإنسان المختصة بل تمام الحقيقة المشتركة مع الفرس فلا بد من قولنا فقط وإلا لم يصح قوله ﴿وهو﴾ أي ذلك المقول ﴿الجنس﴾ لأن النوع أيضا مقول بحسب الشركة في الجملة فكأن المراد منه ذلك وإن لم يذكره

﴿ويرسم بأنه كلي مقول على كثيرين مختلفين بالحقائق في جواب ما هو﴾ فالكلي جنس للجنس شامل لسائر الكليات

[تحليل تعريف الجنس]

و(المقول) إنما ذكر ليتعلق به على كثيرين فليس شيء منهما مستدركا

وإنما ذكر (على كثيرين) ليوصف بقوله (مختلفين بالحقائق) وقوله (مختلفين بالحقائق) احتراز عن النوع وخاصته[١٠] والفصل القريب وتخصيص الاحتراز بالنوع تحكم

[مخرجات بتعريف الجنس]

وقوله (في جواب ما هو) احتراز عن الفصل البعيد والعرض العام وخاصة الجنس

وإنما كان هذا وأمثاله رسما لأن المقولية عارضة للكليات والتعريف بالعارض رسم وذلك لأن الجنس في نفسه هو الكلي الذاتي لمختلفات الحقيقة[١١] سواء قيل عليها أو لم يقل

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٨. في (ه): جزئيه. في (ك): جزئها أي جزء الحقيقة والماهية وهو الحيوان فقط والناطق فقط.

٩. في (ت) و (ه) الشركة. في (ك): الشركة المحضة.

١٠. في (ه): الخاصة. في (ك): خاصته أي خاصة النوع.

١١. في (ه): لمختلفات الحقيقة. في (ت) و (ك): المختلفات الحقيقة

[اللفظ المفرد الكلي إما ذاتي وإما عرضي]

[تعريف الذاتي]

﴿و﴾ اللفظ المفرد ﴿الكلي إما ذاتي وهو الذي يدخل في حقيقة جزئياته كالحيوان بالنسبة إلى الإنسان والفرس﴾ أي إن أريد بهما ماهيتهما النوعية فجزئيان إضافيان وإن أريد ماهية أفرادهما أعني الحصص فجزئيان حقيقيان

[هل النوع ذاتي؟]

واعلم أن الذاتي يطلق بالاشتراك على معنيين ما يكون داخلا وما لا يكون خارجا فالنوع على الأول ليس بذاتي لأنه تمام حقيقة الجزئيات وعلى الثاني ذاتي فظاهر تعريف المصنف يشعر بالأول ويمكن حمله على الثاني بالتأويل بأن يراد بالداخل غير الخارج فإن حمل على الظاهر يكون المراد بالذاتي حين ما شرع في تقسيم المعنى الثاني

[اعتراض]

ولذا أعاده مظهرا فلم يكتف بالمضمر وإن أمكن حمل المضمر على الاستخدام لكن الغالب في المضمر إرادة المعنى الأول

[جواب الاعتراض]

وأما حديث إعادة الشيء معرفة فأصل يعدل عنه كثيرا للقرائن وإن حمل على التأويل المذكور فالذاتي في مشرع التقسيم جار على أصل إعادة الشيء معرفة

[تعريف العرضي]

﴿وإما عرضي وهو الذي يخالفه﴾ أي لا يدخل في حقيقة جزئياته بأحد المعنيين أي بأن لا يكون جزءا أو بأن لا يكون خارجا ﴿كالضاحك بالنسبة إلى الإنسان﴾ فإنه خارج عن حقيقة الإنسان لأن القاعدة أن نوعا ما إذا كان له خواص مترتبة كالناطق والمتعجب والضاحك فأقدمها يعتبر ذاتيا لأن الذاتي أقدم

[اعتراض]

* **فإن قلت حقيقة النوع عين الذات فكيف يكون ذاتيا**

قلت جوابه المشهور أن إطلاق الذاتي عليه اصطلاحي لا لغوي فلا يقتضي المغايرة بين المنسوب والمنسوب إليه

أي لا يمنع مفهومه من حيث إنه متصور في الذهن شركة بين كثيرين فيه وإن منع من حيث البرهان الدال على وحدته كالواجب تعالى أو من حيث النظر إلى وجوده الخارجي

وهذا المنع بوجهين إما بأن لا يكون له وجود خارجي حتى يقال بجواز الشركة فيه كاللاشيء وشريك الباري وإما بأن يكون له وجود خارجي غير مشترك كالشمس

[فائدة قيد (نفس تصور مفهومه) في التعريف]

ففي قوله (نفس تصور مفهومه) احتراز عن أن يخرج أمثال ما ذكرنا من الكليات عن تعريف الكلي فلا يكون جامعا وتدخل في تعريف الجزئي فلا يكون مانعا إذ في الاكتفاء بالنفس أو التصور لا تحصل هذه الفائدة على ما لا يخفى للمصنف

[قيد (المفهوم) في التعريف]

وأما ذكر المفهوم فمبني على أن مورد القسم اللفظ فلا يلزم أن يكون للمفهوم مفهوم

[تعريف الجزئي]

﴿وإما جزئي وهو الذي يمنع نفس تصور مفهومه عن ذلك﴾ أي عن وقوع الشركة بين كثيرين ﴿كزيد﴾ فإن مفهومه الذات مع التعين والمجموع من حيث إنه متصور يمنع الشركة كما يمنع تصور الهذية[٦] من حيث تطبيقها على الوجود الخارجي بخلاف مفهوم الذات فإن مفهومه[٧] عين حقيقة النوع كما عرف في موضعه

[اعتراض على تعريف الجزئي]

* **فإن قلت الجزئي ما لا يمنع نفس تصور مفهومه عن وقوع الشركة كزيد وعمرو وغيرهما وكل ما كان كذلك فهو كلي فالجزئي كلي هذا خلف**

[جواب الاعتراض]

قلت المراد من الجزئي إن كان ما صدق عليه لفظ الجزئي من نحو زيد فلا نسلم الصغرى وإن كان لفظ الجزئي فلا نسلم الخلف في النتيجة

٦. في (ك): هٰذية. في (ت): هُذَيّة

٧. في (ك): بخلاف مفهوم الذات فإنه مفهومه... وفي (ه): بخلاف مفهوم الذات فإنه...

[تقسيم الألفاظ]

[اللفظ المفرد واللفظ المؤلف]

﴿ثم اللفظ إما مفرد﴾ وبسيط وإما مؤلف ومركب لأنه إما أن لا يراد بجزء منه الدلالة على جزء المعنى أو يراد

[اللفظ المفرد]

والأول المفرد ﴿وهو الذى لا يراد بالجزء منه دلالة على جزء معناه﴾ أعم من أن لا يكون له جزء كهمزة الاستفهام أو كان له جزء لا لمعناه كالنقطة أو كان لمعناه أيضا جزء ولا يدل على جزء المعنى ﴿كالإنسان﴾ فإن الألف منه مثلا لا يدل على الحيوان أو يدل على جزء المعنى أيضا لكن لا يدل على جزء معناه كعبد الله علما إذ ليس شيء من العبودية والألوهية جزءا للشخص المعلم أو يدل على جزء معناه أيضا لكن لا يكون دلالته مرادة كالحيوان الناطق علما إذ ليس شيء من معنى الحيوان والناطق الجزئين للإنسان الجزء للشخص المعلم مرادا عند العلم إذ العلم شيء لا يراد به إلا الذات المعين مع قطع النظر عن حقيقة الذات ألا يرى أن المعلم لو كان غير الحيوان الناطق لم يتغير حال العلمية فالمفرد خمسة أقسام

[اللفظ المؤلف]

﴿وإما مؤلف وهو الذي لا يكون كذلك﴾ أي الذي تكون القيود الخمسة متحققة فيه ﴿كرامي الحجارة﴾ فإن الرامي يراد به الدلالة على ذات من صدر منه الرمي وبالحجارة على الأجسام المعينة

[اعتراض على ترتيب تعريفي المفرد والمؤلف]

* **فإن قلت مفهوم المركب وجودي فيجب تقديم تعريفه على مفهوم المفرد فلم عكسه**

[جواب الاعتراض]

قلت لأن القصد بتصدير اللفظ إلى التقسيم والتعريف ضمني والتقسيم باعتبار الذات لا المفهوم وذات المفرد سابق على ذات المركب

اعلم أن المنفرد والمركب وأقسامها الآتية للمفهوم أولا وبالذات واللفظ ثانيا وبالعرض تسمية للدال باسم المدلول غير أن المصنف اعتبر التقسيم المجازي تقريبا إلى فهم المبتدئين

[الكلي والجزئي]

[تعريف الكلي]

﴿و﴾ اللفظ ﴿المفرد إما كلي وهو الذي لا يمنع نفس تصور مفهومه عن وقوع الشركة كالإنسان﴾

[جوابا السؤال الأول]

والجواب من وجهين

أحدهما أن الأمور التي تختلف باختلاف الاعتبارات يراد في تعاريفها قيد الحيثيات سواء ذكرت أو لم تذكر فلما اكتفوا كلهم بإرادتها من غير ذكر في تعريفات الكليات حيث يمكن أن يكون شيء واحد جنسا ونوعا وفصلا وخاصة وعرضا عاما كالملون فإنه جنس للأسود ونوع للمكيف وفصل للكثيف وخاصة للجسم وعرض عام للحيوان اكتفى المصنف ههنا أيضا

وثانيها أن ترتب الحكم على المشتق يدل على علية المأخذ فترتب كل من الدلالات الثلاث على الدال بالوضع يدل على أن تسمية الدلالة مطابقة وتضمنا والتزاما إنما هي بسبب كون تلك الدلالة دلالة بالوضع لتمامه أو لجزئه أو لملزومه

[السؤال الثاني]

*** والثاني أن تقييد دلالة الالتزام باللزوم الذهني مما لا حاجة إليه لأن الغرض من اشتراط اللزوم تصحيح الانتقال وضبط الدلالة وهما حاصلان بأي لزوم كان وإلا لم يكن اللزوم لزوما**

[جواب السؤال الثاني]

وجوابه أنا لا نسلم حصولهما باللزوم الخارجي فإن اللزوم الذهني كونه بحيث يلزم من تصور المسمى تصوره فيتحقق الانتقال واللزوم الخارجي كونه بحيث يلزم من تحقق المسمى في الخارج تحققه فيه ولا يلزم من ذلك انتقال الذهن منه إليه كيف ولو كان اللزوم الخارجي شرطا لما تحقق الالتزام بدونه وليس كذلك فإن العمى يدل على البصر التزاما لأنه عدم البصر عما من شأنه أن يكون بصيرا وعدم البصر يكون البصر لازما له في الذهن مع المعاندة بينهما في الخارج

[السؤال الثالث]

*** والثالث أن قابل العلم وصنعة الكتابة لا يصلح مثالا للمدلول الالتزامي لأنه لا يلزم من تصور الإنسان تصورهما فالأولى التمثيل بزوجية الاثنين**

[جواب السؤال الثالث]

وجوابه أن اللزوم الذهني بين الإنسان والقابلية المذكورة اللزوم البين بالمعنى الأعم والتعريف المذكور للزوم البين بالمعنى الأخص واشتراط الأخص يوجب اشتراط الأعم لعدم تحقق الأخص بدون الأعم فيكون المعنى الأعم أيضا شرطا فالتمثيل له لا للأخص وبهذا القدر يصح التمثيل

وأما كفاية المعنى الأعم لكون الالتزام مقبولا أو عدم كفايته فبحث آخر فيه خلاف بين الإمام والجمهور كما عرف في المطولات

عند عروض المعنى له كدلالة أح على السعال فطبيعية وإلا فعقلية كدلالة اللفظ المسموع من وراء الجدار على اللافظ

[تقسيم الدلالة اللفظية الوضعية إلى المطابقة والتضمن والالتزام]

والمقصود بالنظر للمنطقي[٣] الدلالة اللفظية الوضعية على ما لا يخفى وهي كون اللفظ بحيث متى أطلق فهم منه المعنى للعلم بالوضع وهي المنقسمة الى المطابقة والتضمن والالتزام

كما قال ﴿اللفظ الدال بالوضع﴾ لا غير اللفظ من الدال ولا اللفظ الدال بالطبع أو بالعقل ﴿يدل على تمام ما وضع له بالمطابقة﴾ لموافقته إياه

﴿وعلى جزئه﴾ أي على جزء ما وضع له ﴿بالتضمن﴾ لدلالته على ما في ضمن الموضوع له ﴿إن كان له﴾ أي لما وضع له ﴿جزء﴾ كما سيجيء مثاله

أما إذا لم يكن جزء كما في البسائط مثل الواجب تعالى وتقدس والنقطة فلا يتصور التضمن فيهما

ومنه يعلم أن المطابقة لا تستلزم التضمن بخلاف العكس وكذا الالتزام لا يستلزم التضمن لأن الملزوم ربما كان من البسائط ويستلزم المطابقة وأما استلزامها الالتزام فالإمام قال به وليس بمتحقق[٤]

﴿وعلى ما يلازمه﴾ أي الموضوع له ﴿في الذهن﴾ أي لزوما ذهنيا ﴿بالالتزام﴾ لأنه لا يدل على كل أمر خارج وإلا لكان كل شيء دالا على كل شيء ولا على بعض غير مضبوط لعدم الفهم بل على أمر خارج لازم له

فالدلالات الثلاث ﴿كالإنسان فإنه يدل على﴾ تمام ﴿الحيوان الناطق بالمطابقة وعلى أحدهما﴾ أي على الحيوان فقط أو على الناطق فقط ﴿بالتضمن وعلى قابل العلم وصنعة الكتاب بالالتزام﴾

[ثلاثة أسئلة عن تعريفات أقسام الدلالة]

وفي هذا المقام **أسئلة ثلاثة**

[السؤال الأول]

*** الأول أن حدود الدلالات الثلاث ينتقض كل منها بالأخريين[٥] فيما إذا فرضنا أن الشمس موضوعة للجرم والضوء والمجموع فإن الدلالة على الضوء مثلا يمكن أن تكون مطابقة وتضمنا والتزاما فلا بد من قيد بتوسط الوضع في كل منها كما فعلوا احترازا عن الانتقاض**

---

٣. في (ع): للمنطق. وفي (ه) (ك) (ت): للمنطقي.
٤. في (ك): متحقق. في (ع): محقق
٥. في (ع) و (ه): بالأخرين. في (ك): بالدلالتين الأخريين.

القضايا وأحكامها ومقاصدها القياس

ثم القياس أقسامه خمسة يسمونها **الصناعات الخمس** ووجه الضبط أنه إن تركب من اليقينيات يسمى برهانا ومن الظنيات خطابة ومن المسلمات جدلا ومن المخيلات شعرا ومن الشبيهة باليقينيات أو الظنيات مغالطة فالمغالطة إما سفسطة أو مشاغبة فالصناعات الخمس مع الأقسام الأربعة أبواب المنطق وبعض المتأخرين عد مباحث الألفاظ جزءا منها فصارت عشرة

ولما أراد المصنف أن يلمح إلى كل من هذه الأبواب تسهيلا على من يريد الشروع في العلوم من الطلاب رتب الأبواب على وفق ما أشرنا إليه فصار تقديم مباحث إيساغوجي واجبا عليه

[الباب الأول: مبادئ التصورات]

فقال بعد ذكر الخطبة ﴿إيساغوجي﴾ أي «هذا باب إيساغوجي» أي الكليات الخمس

[لِمَ يبحث عن الألفاظ والدلالات أولا؟]

ولما كان المنقسم إليها هو الذاتي والعرضي اللذين هما قسمان من الكلي القسم من المفرد والقسم من اللفظ وجب التعرض فيه لمباحث اللفظ وتقديمها على غيرها

ولما كان فهم المعنى من اللفظ باعتبار دلالته عليه وجب التعرض والتصدي[1] أولا لذكر تعريف الدلالة وتقسيمها

ومنه يعلم أن المصنف لم يعد مباحث الألفاظ بابا من الفن بل ذكرها في باب إيساغوجي مقدمة لمباحثه

[الدلالات]

[تعريف الدلالة]

فنقول **الدلالة** هي كون الشيء بحالة[2] يلزم من العلم به العلم أو الظن بشيء آخر أو من الظن به الظن بشيء آخر فالشيء الأول يسمى **دليلا برهانيا وبرهانا** إن لم يتخلل الظن وإلا فـ**دليلا إقناعيا وأمارة** والشيء الثاني يسمى **مدلولا**

[تقسيم الدلالة إلى لفظية وغير لفظية]

وتقسيمها أن الدال إن كان لفظا فالدلالة **لفظية** وإلا فغير لفظية فـ**وضعية** إن توسط الوضع فيها كالخطوط والعقود والإشارات والنصب وإلا فـ**عقلية** كدلالة العالم على الصانع

واللفظية إن كان بتوسط الوضع فـ**وضعية** وإلا فإن كانت بسبب اقتضاء طبيعة اللافظ التلفظ به

---

١. هكذا في (ه). وفي (ك): وجب التصدي أي التعرض

٢. في (ه) و (ت): بحالة. وفي (ك): بحيث

بِسْمِ اللهِ الرَّحْمَنِ الرَّحِيمِ

[مقدمة الفناري]

حمدا لك اللهم على ما لخصت لي من منح عوارف الأفاضل * وخلصتني من محن عواصف الفضائل * وصلاة على عامة من لحقهم أولى الفواضل * لا سيما على سيدنا محمد المنعوت بأعلى الشمائل * والمبعوث بأكرم القبائل وعلى آله وأصحابه المهتدين بأوضح الدلائل *

أما بعد فلما لم ينفعني التعلل بلعل وعسى * عن اقتراح أخ لي في كل صباح ومساء * أن أكتب فوائد لائقة بمطالعة الإخوان * لفرائد الرسالة الأثيرية في الميزان * شرعت فيه غدوة يوم من أقصر الأيام * وختمت مع أذان مغربه بعون الله الملك العلام * إنه ولي كل توفيق وإنعام *

[جهة وحدة]

اعلم أن من حق كل طالب كثرة تضبطها جهة وحدة أن يعرفها بتلك الجهة ويحصل الشعور بها قبل الشروع فيها حتى يأمن من فوات شيء مما يعنيه وصرف الهمة إلى ما لا يعنيه * وأن يعرف غايتها ليزداد جدا ونشاطا * ولا يكون سعيه عبثا وضلالا *

[لِمَ يعرّف من جهة الموضوع ومن جهة الغاية؟]

ولأن كل علم كثرة تضبطها جهة وحدة ذاتية باعتبارها تعد مسائله علما واحدا وهي كونها باحثة عن الأعراض الذاتية لشيء واحد وحدة حقيقية أو اعتبارية وجهة وحدة عرضية تتبع الجهة الأولى ككونها آلة واستتباعها غاية جرت عادة العلماء على تقديم الشعور بتعريف العلوم بإحدى الجهتين وغايتها وموضوعها على الشروع في مسائلها

[تعريف المنطق باعتبار الجهة الأولى وباعتبار الجهة الثانية]

فتقول باعتبار **الجهة الأولى** المنطق علم يبحث فيه عن الأعراض الذاتية للتصورات والتصديقات من حيث نفعها في الإيصال إلى المجهولات أو عن الأعراض الذاتية للمعقولات الثانية التي لا يحاذى بها أمر في الخارج من حيث تنطبق على المعقولات الأولى التي يحاذى بها أمر في الخارج

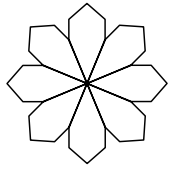
وباعتبار **الجهة الثانية** المنطق قانون يعرف به صحيح الفكر وفاسده فاندرج في الأولى معرفة الموضوع على المذهبين وفي الثانية معرفة الغاية

[أبواب المنطق]

ثم نقول لما كان **الغرض** من المنطق معرفة صحة الفكر وفاسده والفكر إما لتحصيل المجهولات التصورية أو التصديقية كان للمنطق طرفان تصورات وتصديقات ولكل منهما مبادئ ومقاصد فكان أقسامه أربعة فـ**مبادئ التصورات** الكليات الخمس و**مقاصدها** القول الشارح ومبادئ التصديقات

شـــــرح إيســاغـوجي

للعلامة شمس الدين محمد بن حمزة الفناري رحمه الله تعالى[1]



١. النسخة المعتمد عليها (هـ): قول أحمد الدمشقي، الفوائد الفنارية، الطبعة الثانية (إسطنبول: المكتبة الهاشمية، ٢٠١٥)؛ النسخة (ك): محمد الفوزي، خلاصة الميزان، (إسطنبول: مطبعة الحاج محرم أفندي، ١٢٨٤هـ)؛ النسخة (ت): أحمد بن خضر العماري، حاشية قول أحمد على الفوائد الفنارية، بتحقيق أبي جعفر الظاهري (إسطنبول: دار تحقيق الكتاب، ٢٠١٩)؛ النسخة (ع): محمد بن حمزة الفناري، شرح إيساغوجي، (مطبعة أختر، ١٢٩٤هـ)؛ النسخة (س): محمد بن حمزة الفناري، شرح إيساغوجي، (إسطنبول: مطبعة الحاج حسين، ١٣٠٥هـ)؛ النسخة (ج): قول أحمد الدمشقي، الفوائد الفنارية، الطبعة الأولى (إسطنبول: المكتبة الهاشمية، ٢٠١٢).

وأيضا فاللون الأحمر في الصلب يشير إلى متن الأبهري واللون الأسود يشير إلى شرح الفناري واللون الأزرق في الهامش يشير إلى كلام المحشي.

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